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No. 25.

PROBLEMS IN CONNEXION WITH THE VENEREAL DISEASES ACT, 1918.¹

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Sydney.

1. The importance of the subject under discussion to-night can scarcely be exaggerated. In this country, especially in the metropolitan areas, we have a people more or less riddled with humiliating, sorrow-producing and race-slaughtering diseases. This is no exaggeration. Venereal disease is more prevalent than any other disease; by producing sterility and abortion it constitutes the most important factor in race suicide. An authority estimates that 80% of all men in large cities have had gonorrhœa once or several times, that 45% infect their wives, that 80% of all operations upon women for diseases of the uterus and adnexa are caused by gonorrhœa and that 20% of all blindness results from the same cause. Gonorrhœa also more frequently sterilizes the male than is generally understood. Syphilis, by its production of still-births and diseased offspring, plays havoc with the race, and with its long arm reaches out and marks a considerable quota for our mental hospitals. Again, venereal disease, as a result of the war, is materially on the increase, and this increase accentuates the urgency of the situation. This situation has to be met and dealt with. For long the world has shut its eyes to this grave peril, shunning the subject with distaste. Happily, however, a change is in progress, and a world-wide effort is being made to combat the evil. Our Government is joining in the crusade and the *Venereal Diseases Act, 1918*, is the first fruit. The delay in applying the Act is due, I believe, to the lack of existing facilities for treatment to justify its enforcement.

2. The existing facilities in New South Wales for treatment of venereal diseases leaves very much to be desired. There are a few up-to-date private clinics. There are clinics attached to a few of our metropolitan hospitals; these hospital clinics are starved in equipment and are unable to treat the number of patients applying, so that many poor people suffering from venereal diseases are turned away, to remain a source of danger to the community. Apart from the clinics mentioned above, the lot of treating venereal diseases falls to the general practitioner and chemist. Many general practitioners adopt modern methods of treatment for venereal diseases; but it must be admitted that the methods in use by some medical men and by chemists are very much alike and are far from modern. Much study has been directed of late years to venereal diseases and their treatment, and, as a result, treatment has been placed upon a more reasonable and scientific basis, with much quicker and surer results. This progress has outstripped some practitioners, who continue, perhaps conscientiously, in the same old groove.

3. What will the Act accomplish?

(i.) It will ensure the enforced treatment of

all cases of venereal diseases by medical men and by medical men only.

(ii.) It will ensure more or less prevention of the spread of the diseases from person to person, by penalizing persons knowingly so doing.

(iii.) It forecasts the establishment of ample, up-to-date clinics, staffed by competent officers, for the efficient free treatment of all poor persons suffering from venereal diseases.

The clinics about to be established should serve a double purpose, to cure the patient and to train the doctor, and full provision should be made for the latter function.

4. What remains to be done? If the Act relies mainly on enforced treatment for the eradication of venereal disease, disappointment will ensue. Venereal diseases, especially gonorrhœa, and especially gonorrhœa in women, are notoriously and necessarily difficult to cure. An apparent cure is more or less easily obtained, but the danger of infection, especially in women, may still lurk latent, springing into activity under favourable conditions, such as nearness to menstrual period, lack of cleanliness, undue passion, alcoholic indulgence or all of these combined. More potent than treatment in the eradication of venereal disease is prevention. Venereal diseases are essentially preventable. King Edward, I believe, said in reference to these diseases: "If preventible, why not prevented?"

The means for prevention of venereal disease may be divided into: (i.) the education of the community as to the prevalence and danger of venereal diseases, (ii.) the provision of preventive measures after the risk has been run, (iii.) the supervision of prostitution and (iv.) the amelioration of the condition of the masses, leading to sobriety and morality.

(i.) Education of the community as to the prevalence and danger of venereal diseases. As a boy reaches maturity and before he goes out into the world he should be instructed in sex matters and warned of the dangers that may follow a yielding to his awakening desires. Ignorance of the prevalence and danger of venereal disease is responsible for a large percentage of cases of venereal disease. At least 25% of prostitutes are suffering from venereal diseases, and if a boy were to be made aware of this, he would probably think twice about taking the risk and the second thought might save him. Similarly, he may be warned that amateur prostitutes, who probably add to a small wage by this means, are quite as dangerous as professional prostitutes. He can be assured that sexual restraint and sexual abstinence are quite compatible with perfect health. Girls also approaching maturity should likewise be instructed. The task of instructing should be entrusted to specially appointed suitable medical men and medical women. I think medical men are generally believed; they have a plain, forcible way of asserting a fact, and belief is essential to ensure results. In this way the youth of the community can be forewarned and

¹ Read at a Meeting of the New South Wales Branch of the British Medical Association on May 30, 1919.

may be forearmed. Suitable pamphlets also may assist in warning the community of the prevalence and dangers of these diseases.

(ii.) The provision of preventive measures after the risk has been run. In my opinion this could be the most potent factor in the eradication of venereal diseases, providing it be enthusiastically adopted and energetically and thoroughly carried out. In spite of knowledge of the risk run, sexual desire may override self-preservation and the risk is taken. Then, and then only, may a man pause to think as to what may happen. Then will he willingly do anything that will prevent the onset of venereal disease. At this period, that is a few hours after exposure to risk, much can be done. This has been proved over and over again, especially as regards gonorrhoea, but also as regards syphilis and soft sore. "If a man has been with a woman and comes up next day, let him pass water, then wash out the anterior urethra with two pints of 1:2,000 potassium permanganate. After this he cannot develop urethritis" (Kidd). On the transports preventive treatment after exposure has without doubt prevented the onset of venereal disease in innumerable instances. The American Navy by adopting preventive treatment after exposure has reduced the incidence of venereal disease enormously. To give an example: "On board the (American warship) *Baltimore*, visiting Sydney, Melbourne and Auckland for one month each, with prophylaxis there was practically no venereal disease, whereas the British ships, in the same environment, had over 25% of their crew affected" (Norris). The consensus of opinion of American medical naval officers is that if the prophylactic treatment be adopted within eight hours of exposure, protection is almost certain; if within twenty-four hours, it is of great value and it should be employed even up to forty-eight hours; later than this, however, it is of little use. Mummery advocates the adoption of prophylaxis in the British Navy and estimates a 75% reduction of venereal disease thereby. Prophylactic measures are also in force in the French and Japanese Navies and Armies. Wherever prophylaxis against venereal disease has been thoroughly applied, the best anticipations have been realized. If all this be true, see what hope there is for the eradication of venereal diseases by the adoption of prophylaxis. Difficulties will arise in applying prophylaxis to a civil population, but I do not see why they should not be overcome. All that is necessary is to have properly run prophylactic stations in suitable localities, where treatment can be easily obtained after exposure.

(iii.) Supervision of prostitution. Prostitution, regarded in a broad sense of the word, is the main breeding-ground for venereal disease, over 25% of prostitutes suffering from and therefore spreading venereal disease. Prostitution has been in existence from time immemorial. Its suppression has proved an impossibility. Attempts at suppression invariably end in failure. Therefore, we must accept it as inevitable. But we cannot allow prostitution to go on breeding venereal diseases unhindered. By supervision we must strive to render it more innocuous as a disease producer. The application of supervision to prostitution is hedged in with

difficulties, and in countries where it has been tried, the results have not been invariably satisfactory. In Cairo the prostitutes were medically examined weekly, and those found diseased were retained in hospital for treatment until cured. In other countries somewhat similar procedures are adopted. In France supervision of prostitution has been in existence for over fifty years and has been fairly satisfactory, as only 7% of infected men receive their infection from public prostitutes. In spite of difficulties and the varying results of its adoption elsewhere, supervision of prostitution seems the only reasonable means of mitigating its evil.

(iv.) The amelioration of the condition of the people. Much has been done in this country by social legislation, etc., in this direction, but much yet remains to be done. Alcohol and venereal disease go hand in hand; drink begets a false courage and a man when drunk, will take risks he would not take when sober. Suppression of drunkenness will lead to a diminution of venereal disease. Working girls receiving less than a living wage may be tempted to earn more. Hence the importance of all workers, especially women workers, receiving a living wage. On these and kindred lines a general improvement in the living conditions will tend to a raising of physical and moral tone, with a corresponding reduction of vice and disease.

THREE NEW AMPUTATIONS OF THE FOOT, EACH CONSERVING THE CALCANEAL TREAD.

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(Continued from page 485.)

9. The following ligamentous attachments of the calcaneus have now been cut: (a) the tibio-calcaneal fasciculus of the ankle on the medial side (this attachment disappeared with the removal of the sustentaculum tali); (b) the calcaneo-fibular band of the lateral ligament of the ankle; (c) the posterior talo-calcaneal; (d) the lateral talo-calcaneal; and (e) the medial talo-calcaneal ligaments. The rest of the soft tissues at the sides and over the upper surface of the calcaneus have also been loosened from it. As a result, we have now succeeded in mobilizing the bone, and are prepared for the next step, which consists in pushing the calcaneus well forwards, so that the cut surfaces of the two bones can be fitted in close apposition. The anterior part of the calcaneus now protrudes from 1.5 to 2 cm. in front of the head of the talus, instead of being, as at the beginning, about 0.5 cm. behind it. In fitting, shave down with the osteotome wherever necessary, so that a perfectly adjusted close contact is everywhere obtained, with an ample advancement of the calcaneus. Also, now note carefully whether there is likely to be enough flap material to cover easily when the time comes for removal of excessive projection of the forward part of the calcaneus. If the flap material seems too scanty, then the operation will have to be modified by a more radical removal of bone from the calcaneus, making the section more horizontal and more ample in its scope. If there is still any doubt, proceed at once to trim down the an-

terior projection of the calcaneus and test the covering power of the flaps. Otherwise, it is usually more convenient not to trim down the projection until after the wiring has been accomplished.

10. Now take up the drill and bore a hole horizontally from side to side through the neck of the talus. The bore across the neck should be just behind the head and fairly high up, beneath the attachment of the anterior ligament of the ankle-joint, not low down near the surface of the cut. Leave a guide, such as a cannula, or a nail, in the bore-hole, and make a similar transverse bore in the calcaneus. To find the right place to make the bore, hold the calcaneus for-

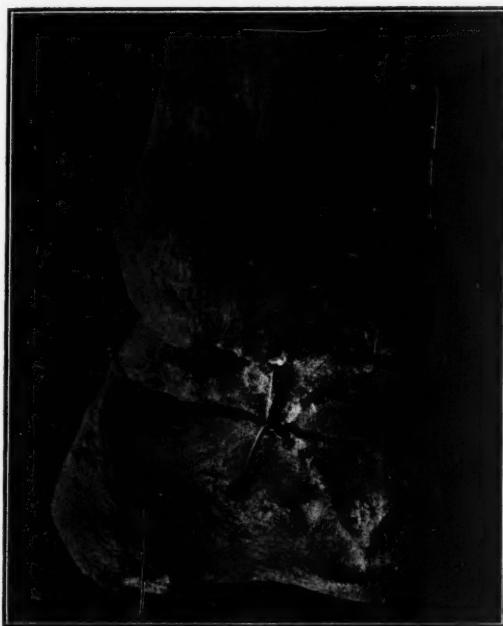


Figure VII.

No. 1 operation, bone preparation, seen from the medial aspect. This should be carefully compared with the radiogram of a normal foot shown in Figure I. The comparison shows clearly the radical alteration in the levering power of the Achilles tendon, which must be produced by the new and very greatly advanced relative position of the calcaneus. In this specimen the cut made on the calcaneus has reached as far back as the top of the smooth area on the posterior surface. The calcaneus has been slid forwards till there is hardly any backward projection. A smaller degree of advancement (see radiograms, Figures V. and VI.) seems to give quite a satisfactory result. Note the position and the slope of the planes cut on the talus and calcaneus; the relative direction of the slope can be seen by comparison with the radiogram of the normal foot. Note that the upward and backward slope of the cut on the talus should not be carried up into the ankle-joint, but should be approximately as shown. Note the position of the wire ligature and the boreholes. Note that there is still some projection of the anterior part of the calcaneus, although it is seen that the greater process has been trimmed away.

wards in the new position it is intended to retain, and bore across in a position below and a little behind the hole through the talus; the presence of the guide shows the location of this. The hole in the calcaneus must not be anterior. Put a temporary guide through the calcaneal perforation also.

11. Cut and trim the flaps to the exact shape and size desired. But in doing this, leave the anterior tendons long, so that they can be sutured to the base of the lower flap.

12. Remove the tourniquet and attend to haemostasis, using plenty of hot water.

13. Thread a length of stout silver wire, thick enough to have some stiffness (1 to 2 millimetres), through the bore-holes, make a final accurate adjustment of the two bones, and while holding them in position draw the wire ligature tight and twist up till the fragments are held quite firmly and immovably in the required position. The twisted ends are, of course, afterwards carefully turned in towards the bone.

14. The anterior portion (greater process) of the calcaneus projects very prominently when the bone is held forwards in its new and advanced position. If this projection be not trimmed down, a much longer plantar flap will be required than would otherwise be



Figure VIII.

No. 1 operation, bone preparation. Front view of a right foot specimen, fibula removed, and of a left foot specimen with fibula in place. Note that the lower part of the head of the talus has been sliced off and that the corresponding planar surfaces on the calcaneus and the talus are accurately adjusted, and firmly held together by a stout wire ligature. The wire is seen to pass transversely through the neck of the talus, behind the head, but in front of the body of the bone, the ankle-joint being undisturbed. The vertical distance of the boreholes from the cut surfaces of the bones can be seen. The rough area on the front of the calcaneus is produced by the surface of cancellous tissue left after trimming away most of the greater process to reduce the anterior projection of the bone. Note that in this and in all the operations the sustentaculum tali has been removed flush with the side of the calcaneus.

sufficient, and, after healing, the comparatively sharp and narrow hard projection in front of the rest of the stump may perhaps invite trouble and discomfort. The projecting part should therefore be trimmed down to an appropriate extent and bevelled off to a rounded contour. Be particularly careful to bevel away any sharp edge at the antero-inferior angle. The gouge forceps form a convenient trimming instrument.

15. Suture the anterior tendons to the lower flap in front of the calcaneus, as low down as possible.

16. Close the wound, putting a short and sufficiently wide tube at each side, to provide for oozing. These tubes should be removed within 36 hours. It would

be well to elevate the limb by a swing, or on a cushion, for about the same period, or longer. (Figs. I., II., III., IV., V., VI., VII., VIII., IX. and X.)

Modifications in Technique.

In describing the steps of the operation, I have already mentioned some possible modifications of the technique. For instance, I have mentioned the effect of altering the plane of section of the calcaneus. Perhaps I should add to the list of warning notices. I have tried to do without wiring. But it was found that when the wire ligature was omitted, the calcaneus sagged and fell away from close contact with the talus. I tried to see if bandaging would control this, but repeated X-ray examinations of such cases showed that bandaging was useless, and, in any case, tight

that I have tried, and condemned, was to make an incision behind, adjacent to the tendo Achillis, and after using the rugine, to introduce the osteotome and cut the top of the calcaneus horizontally from behind forwards, instead of from before backwards. I tried this several times, both with and without section of the tendon, but I cannot recommend it any way. I thought the posterior incision might come in usefully for drainage, but it does not seem to be required, and incisions in that situation have some special disadvantages.

I have already described two operations carried out on the living patient before I had begun experimental work on the cadaver and worked out the best tech-



Figure IX.

No. 1 operation, bone preparation. See description to Figure VIII.

bandaging would not be permissible on such a stump. I tried thin wire, and I tried a strip of the patient's own tendon, instead of thick wire, but I found it was a decided advantage to have some stiffness in the ligature, and only thick wire provided this. I also tried wiring from the front in an antero-posterior or sagittal plane, instead of transversely, but it was not very satisfactory. In my earlier work I cut the tendo Achillis, but I now think it is far better to leave it intact, because it helps to keep the posterior part of the calcaneus well up in apposition with the talus, supplementing the action of the ligature. It seems to me, after some practical experience, a harder problem to ensure close apposition of the cut surfaces of bone posteriorly, than it is to maintain the calcaneus in a fully advanced position. Another modification of technique



Figure X.

No. 1 operation, bone preparation, posterior view. At the bottom note profile of tubercles marking site of the natural calcaneal tread. The rough part above this corresponds with the insertion of the Achilles tendon, and above this is the smooth area on the posterior surface corresponding with the bursa, which lies here between tendon and bone. Then, above this, transversely, can be traced the line of apposition between the cut surface of the calcaneus and that of the talus. It will be seen that the ankle-joint is unaffected, and a portion of the trochlear articular surface of the talus can be seen just beneath the tibia. A portion of the wire ligature can be seen, though rather dimly, on the left of the calcaneus.

nique. But since this has been done, I have had an opportunity of testing on a living patient the fully-developed operative scheme that I have described in such detail as the method to be advised and followed. The patient was a young man, W.A.K., aged 27 years, operated on July 10, 1916. He had been employed on railway construction work, and his foot had been crushed by a falling rail some time before. He had a healed, cicatrized deformity of the front of the foot, and being quite unable to walk, he was sent into hospital for amputation. Instead of performing a Syme or a subastragaloid, which would otherwise have been the only practical alternatives, I did the operation described above. The result has been everything

that the most sanguine surgeon could have wished for. The stump, of course, looks very like that of a

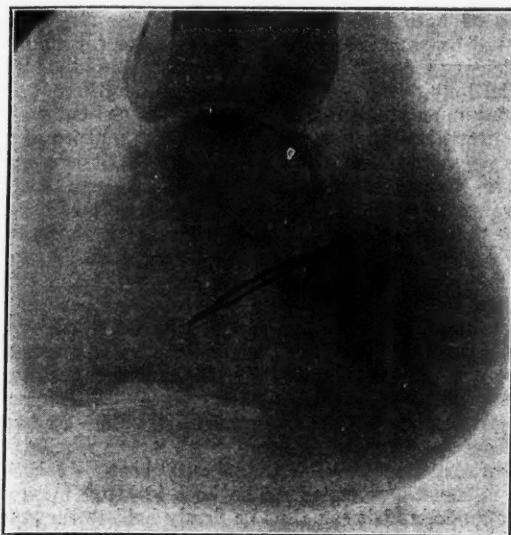


Figure XI.
No. 1 operation. Radiogram of foot of W.A.K., side view.

successful Chopart. Radiograms show that the remnants of the talus and calcaneus have preserved their

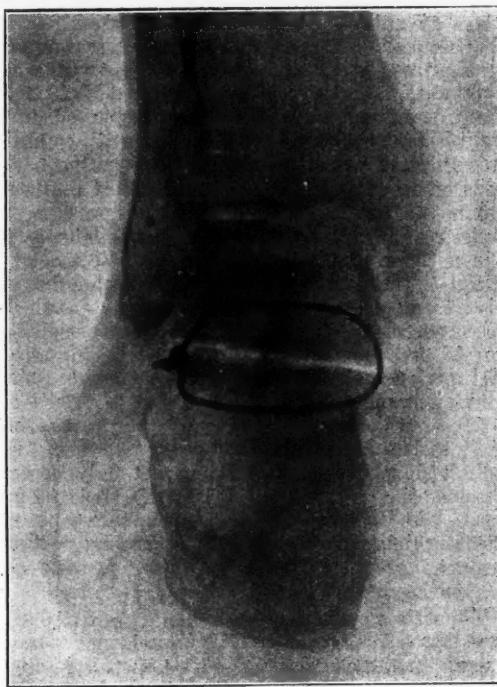


Figure XII.
No. 1 operation. Radiogram of foot of W.A.K., antero-posterior view.

new relationship, and are united to form one bone. The backward projection of the calcaneus existing in

the normal foot, which is the weak spot of a Chopart, has been reduced till it is now quite small; and the



Figure XIII.
No. 1 operation. Photograph of the amputation stump of W.A.K. referred to in the text, 21 months after operation. There is free ankle-joint action of flexion and extension. Note the preservation of normal calcaneal tread, the situation of the cicatrix and the large size of the stump. The position of the malleoli is also shown. Such a stump would afford a good grip to a boot laced on to it.



Figure XIV.
No. 1 operation, tread-print of stump of W.A.K., exact size. It shows the calcaneal tread unimpaired, and illustrates the large area over which the pressure is distributed.

ample in amount, and walking is easy and comfortable. (Figs. XI., XII., XIII. and XIV.)

heel pad is brought forward, so that the weight is transmitted more directly through it. While the mechanical advantage of leverage possessed by the tendo Achilles has been practically abolished by the shortening of the arm of the lever, yet the knee-flexing function of the gastrocnemius is uninjured, since the tendon is intact. Ankle action is free, the calcaneal pad is horizontal and

We may now consider what seem to be the good points of the operation which has been described. The result obtained in the case of W.A.K. sufficiently demonstrates that it is a procedure well worth serious consideration, an operation well worth doing if the condition of the foot permits, especially as it leaves the way open for other less conservative operations without prejudice to their success. It could be turned into a subastragaloid, or into a Syme, or into my No. 2 operation, to be described later, without any particular difficulty, and the substitution could be either immediate or deferred.

In every case of amputation, one of the strongest desires of the patient and of his friends, as well as of the surgeon, is that as little should be sacrificed as is consistent with future comfort and physical ability. The operation I have devised certainly helps to satisfy this very natural desire, and there can be no doubt as to what the patient would choose if the conditions make the attempt justifiable.

If we except Chopart's as no longer justifiable, I think it may be claimed for the new operation that there is less trauma of soft tissues and less interference with blood supply than in any of the procedures—Syme, Pirogoff, Le Fort, Tripiere, or the subastragaloid operation, for which it is a possible substitute. And to the surgeon of ordinary experience, it is, on the whole, quite as easy to perform as these other operations, easier, indeed, than some of them. At the same time, not one of them can justly be described as very easy. They all require skill and care.

It may also certainly be claimed for this operation that in the case of children there is no danger of interfering with the growth of the limb by injury to the lower epiphysis of the tibia and fibula. The surgeon performing a Syme in a child has always to sacrifice the lower epiphysis of the fibula. This is a matter of minor importance, but unless he is careful and circumspect he may injure the lower epiphysis of the tibia, which is much more important. The operator must do no more than just shave the articular surface. If he should forget this precaution, and operate as on an adult, he may seriously interfere with the future growth of the limb.

In further comparison with Syme's operation, it will be noticed that there is very much less actual shortening. I have not actually measured it, but the difference in length is evident.

Another difference is that a flexible ankle-joint is preserved, giving more elasticity to the stump, a factor in lessening the jar to the limb during walking.

The existence of the ankle-joint has another effect. It allows of the pivoting of the leg on the calcaneus, so as to distribute the weight evenly along the whole antero-posterior length of the part intended to serve as the tread. The mechanism is exactly the same as that provided for the "feet" of a tractor wheel built on the pedrail principle, and the function is also exactly similar.

The malleoli remain also. Their retention leaves a natural prominence on either side which gives opportunity for utilization both as vertical and horizontal bearing-points. The presence of vertical bearing-points is useful to the maker and wearer of artificial

limbs because they make it impossible for the stump to work up and down inside the appliance after it has been laced on. This tends to add security to the limb, and strength and ease to the walking power. As horizontal bearing-points, they provide a comfortable and efficient means of taking twisting strains in an artificial limb. But as to this, there will be different attitudes among makers, according to the particular style of prosthetic appliance they sell. The makers of one very good type of these limbs say that it is a great advantage to have the malleoli to take up twisting strains. Another maker claims that the limbs he supplies never show any tendency to twist, the strains being sufficiently taken up by the grip of the apparatus when firmly laced on the leg, or leg and thigh.

However, apart from artificial limbs, there is yet another useful function that can be provided by the existence of a large-sized extremity to the stump and the prominence of the malleoli. It makes the stump very much more convenient for a man of the poorer class who cannot afford an artificial limb and who wishes to get about with the much less expensive substitute, a short boot, or "elephant" boot, as I believe it is sometimes called. The boot is laced up above the ankle, and it can thus be firmly held to the stump without any slipping up and down, and without any twisting. The wearer of such a boot is given an additional advantage in the circumstance that the limb he possesses is of the most convenient length for the purpose. Of course, a boot is likely to be but a poor substitute for a good artificial limb; but these cost money.

But there can be no doubt that one of the most important advantages which the new operation provides is the surpassingly good tread. In all low amputations the tread is a matter of extreme importance. In this operation, and also in the No. 2 and No. 3 operations, the natural calcaneal pad is preserved on the weight-bearing area, and in its natural condition. After Pirogoff's or Hancock's operation, the patient treads on what was formerly the back of the heel, a part not naturally adapted for the purpose. In Tripiere's and the subastragaloid amputations, as well as in a Syme, the calcaneal pad is dissected off its natural seating and replaced as a flap on another seat. This treatment causes more or less wasting of the pad from absorption. The calcaneal pad is a specially constructed arrangement of the tissues adapted to serve the function of a sort of weight-bearing and shock-receiving organ for the tread of the foot. In must therefore be a great advantage, other things being equal, to be able to preserve this pad intact for its original purpose. My operation not only contrives this, but the area of the bearing surface is much larger, both transversely and in an antero-posterior direction, than it is in any of the others, Le Fort's and Chopart's excepted. The two latter provide about the same as mine. (Fig. XIV.)

Chopart's amputation has fallen into disrepute because it was so often followed by a non-weight-bearing stump. In the classical Chopart's operation, all that was done was to disarticulate through the mid-tarsal joint and cover the front with an upper and lower flap. Later on, the Achilles tendon very frequently succeeded in pulling up the back of the calcaneus, tilting it into a nearly perpendicular position, with the sharp

lower edge of the greater process projecting downwards like a knife-edge, and causing tenderness on the spot where the weight was borne. At the same time, the strong interosseous ligament pulled the head of the talus into a condition of downward flexion, carrying the cicatrix with it. In its new position the cicatrix had to transmit weight and carry thrusts, and cicatricial tissue is not adapted for that purpose. This tilting appears to have occurred even when the Achilles tendon had been cut. In other cases the calcaneus gradually rotated on an antero-posterior horizontal axis and assumed a varus position, causing the patient to walk on the outer side of the stump extremity.

A New Principle.

Now, I have in this operation introduced an entirely new principle. My idea is to push forwards the calcaneus so as to shorten the posterior arm of the lever, and thus to lessen the mechanical advantage conferred on the Achilles tendon, and thereby prevent the tilting up of the calcaneus which occurs after Chopart's amputation. The anterior arm of the lever gets a little extra assistance from new attachments of the anterior tendons. Even if bony union of the talus and calcaneus did not occur, the area of fibrous union would be broad enough to give considerable strength. The lessening of the mechanical advantage of the Achilles tendon would be secured permanently.

As regards any propensity to horizontal rotation of the calcaneus on an antero-posterior axis, producing varus deformity, I think we can look forward with confidence to the elimination of any such tendency. In the first place, the lessening of the vertical diameter of the bone makes it broader in proportion to its vertical depth than it was before, thus tending to stabilize its equilibrium better. In the next place, the flattening of the opposing surfaces of the talus and calcaneus, even in the absence of bony union, makes the calcaneus keep its flat face upwards to meet the pressure coming down through the similar face of the talus. The removal of the sustentaculum tali also eliminates a point of leverage which might be commanded by the tendon of the flexor longus hallucis.

As further advantages over Chopart's operation, it may be mentioned that the sharp border of the calcaneus at the lower margin of the calcaneo-cuboid facet on the greater process has been taken away. And, finally, there is no projecting talus to be thrust against an overlying cicatrix.

In connexion with the new operation it must be remembered that never again will the patient have to use his tendo Achillis to rise on the toe-pad in walking, running, or jumping. Therefore, the weakening of the muscular power of the back of the leg, produced by shortening the backward projection of the calcaneus, is no real loss, for the muscles of the calf will never again be called upon to do anything nearly equal to the work that was formerly required of them.

Further Experimental Studies.

In addition to developing the technique of the operation described in the foregoing pages, I have, since becoming interested in the subject, done a good deal of experimental work in connexion with the type of osteoplastic amputation through the tarsus in which the talus has been eliminated altogether. The work has been most interesting and instructive, and quite

worth the trouble, for two practical operations founded on the type have developed from the series. I shall refer to these as No. 2 and No. 3. Really, No. 3 was the earlier one to evolve itself, and No. 2 was an attempt to improve upon it where the other seemed to show weak points. I have not adopted a numeration based on seniority, but it is based on the order of conservation of bony structure. I have no doubt at all that in No. 2 a better operation than No. 3 has been found; still, both have points of interest, and both are certainly operations for practical consideration, though neither has yet been carried out on the living patient. I shall, therefore, describe both, but I shall discuss the theoretical basis of technique chiefly in connexion with No. 2, as I regard this one as the operation of choice. I shall, moreover, describe No. 2 after No. 3, but in spite of the seeming inversion of sequence, it will be really more logical and convenient to adopt this order, even though a complete description of No. 2 in this way will involve some slight duplication in parts. And, as regards No. 3, the full discussion of the meaning of certain details common to both operations will not be found until they are met with later on under No. 2.

The No. 3 Operation.

The No. 3 operation proceeds as follows:—

1. An upper and a lower flap are made, but shorter than in No. 1. It is difficult to give an arbitrary line, but one encircling the foot at the lateral plane corresponding to the prominence of the navicular bone is ample to mark the extreme anterior limit for the length of the plantar flap, and more than enough for the anterior flap. The damaged part of the foot is removed by disarticulation at the medio-tarsal joint.

2. Then cut off the sustentaculum with an osteotome as in No. 1 operation.

3. Next seize the head of the talus with lion forceps and carefully disarticulate it, cutting close to the bone to avoid injury to blood vessels.

4. The next step is to remove a slice of the distal extremity of the tibia and the lateral malleolus at the same level as that prescribed for Syme's operation. But the osteotome is substituted for the saw in carrying this out. If a preliminary suleus be cut round the bone as far as possible, by gradually deepening this the bone can easily be cut as cleanly and evenly as by a saw, and just as safely, or more so. Indeed, I am inclined to regard the osteotome as preferable.

The osteotome is indeed the key which unlocks the problems of tarsal osteoplastic amputations, and I have found it not less suitable for knee-joint excisions. When one finds what can be done with its aid, it makes one marvel that its value for such purposes should have been so much unappreciated.

5. If an osteotome be employed, an operation preserving a segment of the calcaneus more or less like that of Le Fort's is easier to carry out than one such as a Syme, which requires resection of the whole bone. This discovery will be made at once by any experimentalist. In Le Fort's operation, the horizontal section of the calcaneus is made just below the level of the sustentaculum. It is far better to adopt a higher level. That of the No. 1 operation will give a good workable result, but I recommend a section just a little different, taking off at the base of the convex

articular facet about the bottom of the rise of the smooth articular surface. The calcaneus is broader here than it is at a lower level. The plane should not be parallel with the long axis of the calcaneus, but should have a moderate slope upwards and backwards, taking it up to the apex of the smooth surface, above the insertion of the tendo Achillis, and then shaving it down until we procure a sufficiently broad cut surface to place beneath the cut on the distal extremity of the tibia (Fig. II.). The reason for the inclined plane will be discussed later. It is convenient, as a preliminary to shaving down the calcaneus, to remove first the projection of the upper and anterior portion of the greater process. Though massive cutting is satisfactory for the tibial extremity, as in



Figure XV.

No. 3 operation. Radiogram showing antero-posterior view. Same experiment as shown in Figure XVI. and Figure XVII.

Step 4, it is not to be recommended for the calcaneus, being less safe and under control than shaving. The surplus lengths of all cut tendons should be removed well back.

The reader will now be able to notice that we have contrived a bone section, of the tibia and fibula on the one hand, and of the calcaneus on the other hand, which is approximately the same as that adopted in Le Fort's operation, but it is brought about by an entirely different method. It is done more easily and simply, with very much less crude violence, with a much smaller skin incision, and with much less interference with the blood supply of the calcaneal fragment.

The next two steps are not paralleled in Le Fort's operation.

6. The calcaneal remnant is pushed well forwards, and the surgeon decides how far the bone should be set in this position of advancement. It will probably be seen that the best position is one that leaves (in a male foot) from 2.5 to 3 cm. projecting forwards from the front of the tibia, the more the better, as this brings the deepest part of the bone, the natural tread, more directly in the line of pressure. Most of the projecting mass of bone will have to be cut back.

7. The greatest difficulty of the whole operation arises at the next step, when some method of keeping the calcaneus in close and fixed



Figure XVI.

No. 3 operation. Figure XVI. is a radiogram and Figure XVII. is a photograph of the same cadaver experiment after making it into a bone preparation. Side view, fibular aspect, shows plane of section of tibia and fibula, and site of calcaneus. In the dry bone-preparation it can be very clearly seen that the site of section of the calcaneus in front keeps off at the lower and anterior part of the rise of the convex articular facet, just behind the depression which receives the attachment of the interosseous ligament. The site of the depression is clearly shown. Note that the plane of section of the calcaneus does not correspond with the long axis of the bone, but has a slope relatively upwards, so as to be level (*i.e.*, parallel with the horizon), when set in position. This ensures that the natural tread of the heel shall remain the point of contact with the ground. Note that the advancement of the calcaneus brings the line of pressure within the perpendiculars of the tibia. Note the position of the transverse boreholes through the tibia and the calcaneus. It will be seen that the tibia is perforated comparatively high above the section, so as to obtain firmer bone. The anterior portion of the calcaneus has been very freely trimmed away.

apposition with the tibia has to be contrived. It will be found that, not only does the calcaneal fragment tend to fall away from the tibia, but the soft tissues tend to crowd in at the side and posteriorly. There is also some tendency for the fragment to rotate horizontally on an antero-posterior axis, so that it lies more or less on its side. These tendencies are more pronounced if the section of the bone has been parallel to its own long axis instead of sloped upwards and backwards to make it approximately parallel to the horizon. They are also more pronounced in a low cut

section. There is another tendency to the assumption of a skewed position of the calcaneus, a rotation round a vertical axis.

The cancellous bone-tissue with which we are dealing is soft, and particularly so in patients who have been confined to bed and unable to use the foot for a considerable time, when one finds that it cuts like cheese. The surface over the cancellous portion of the tibia is almost without any compact crust, and what there is is very thin and unresisting.

Nailing the bones together is quite useless; I have tried it. I have also tried autogenous dowels cut from the individual's own fifth metatarsal bone, with equal want of success. I found that the best thing to do was to get a very thick wire ligature, so thick that it would not readily cut the soft bone, and to hold up



Figure XVII.
See description to Figure XVI.

the calcaneus with it. The wire should be about 2 mm. in diameter. It transfixes the anterior portion of the tibia from side to side, well up, and loops through a transverse borehole in the calcaneus. This borehole through the calcaneus must not be too far forwards. It is not always easy to draw the posterior part of the calcaneus up to the corresponding part of the tibia with the wire ligature, and thereby prevent the crowding in of the soft tissues. This difficulty, when it occurs, is probably not so great in the living patient as it seems in the cadaver, for if the Achilles tendon is uncut, it will assist in holding up this end of the calcaneus. Haemostasis is attended to before wiring is completed.

In connexion with the difficulties of securing good and enduring apposition in tarsal osteoplastic ampu-

tations, I am not now surprised to note the statement made in the text-books that, after Pirogoff's operation, bony union of the calcaneal fragment often fails to occur. If perfect apposition is difficult to get in the operation I have just been describing, it must be still more so in a Pirogoff, where no special means are employed for the purpose.

When flap material is scanty, the calcaneus can be pared down more and cut back further, until it becomes possible to complete an operation with an amount of flap not very greatly larger than that demanded by a Pirogoff, or even a Syme (Figs. XV., XVI. and XVII.).

(To be continued.)

Reports of Cases.

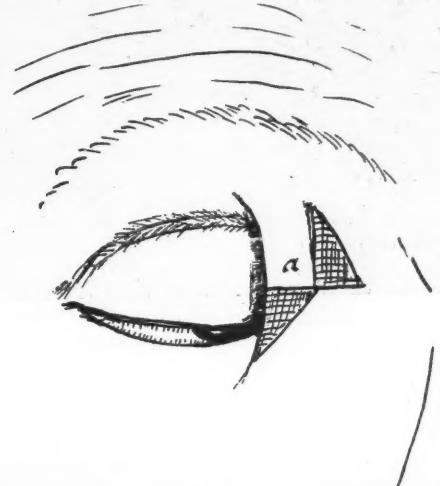
A CASE OF EPICANTHUS AND CONGENITAL PTOSIS.

By F. Antill Pockley, M.D.,
Honorary Ophthalmic Surgeon to the Royal Prince Alfred Hospital and the Royal North Shore Hospital.

Epicanthus is a fairly common congenital condition, especially in slight degrees, whilst more marked cases, which are frequently associated with ptosis, are not uncommon.

Results of operation are generally disappointing to both surgeons and parents, and the number of different operations devised for its cure shows that we have not yet succeeded in getting a satisfactory one.

In this case both the epicanthus and ptosis were of extreme degree, the epicanthal fold partly covered the cornea of each eye and the ptosis (also bilateral) was so great that the lids were quite closed and the child had to raise them with his finger to be able to see. The operation I adopted was a modification of Rogman's (*Annales d'Oculist.*, 1904, Vol. CXXXI., p. 464), slightly altering the shape of the incisions and excising the V-shaped portions of skin, instead of transposing them. The rough diagram sufficiently explains the



method. The upper flap, "a," of skin is undermined, and both it and the lower portion drawn across the two V-shaped denuded areas and sutured. A few weeks after the operation for epicanthus the ptosis was dealt with by Hess's well-known operation of subcutaneous fixation of the lid to the occipito-frontalis, which acts as an elevator. This is the operation I have done for many years for ptosis, and I prefer it to any other. It always gives satisfactory results. Both operations were done on one eye at a time, first the epicanthus and three weeks later the ptosis, so that any modifica-

tion found necessary could be adopted when operating on the other eye. There were thus four operations altogether, at intervals of a few weeks.

Unfortunately, two photographs have been lost. Figure I.



Figure I.

shows one eye finished, the other not touched, and Figure II. the complete result. The scar seen on the bridge of the nose is the result of an attempt at another hospital to cure



Figure II.

the epicanthus by Knapp's rhinorrhaphy (removal of an elliptic fold of skin from the bridge of the nose), an operation I do not favour.

The result was satisfactory, both to me and the parents. The child could open the eyes fully and also close them easily, and he has now a bright expression instead of that of a sleepy Mongolian.

The only difficulty in the operation lies in estimating the exact amount of skin to be removed, and the aim should be rather to under- than to overdo it, as any slight remaining epicanthus disappears with growth and development of the nose.

DIRECTOR OF THE WALTER AND ELIZA HALL RESEARCH INSTITUTE.

The Trustees of the Walter and Eliza Hall Fund and the Board of the Walter and Eliza Hall Institute of Research

in Pathology and Medicine have appointed Dr. Sydney Wentworth Patterson Director of the Institute. Dr. Patterson was nominated by an Advisory Board consisting of Sir Almroth Wright, Sir John Rose Bradford, Dr. C. J. Martin and Sir John Macfarland. Dr. Patterson is a graduate of the Melbourne University of 1904. He gained first-class honours in chemistry, physiology and medicine. He was a Beit Memorial Research Fellow and worked in Professor Starling's laboratories at University College on physiological chemistry. In 1917 he won the Schafer Prize for his studies on calcium and carbohydrate metabolism and on the action of the cardiac muscle. More recently he carried out researches in connexion with the protozoa responsible for some of the ill-defined febrile conditions met with on active service. He has also investigated the morbid anatomy and bacteriology of influenza. In 1907 he took his M.D. degree at the Melbourne University and later received the honorary degree of D.Sc. of the London University. He served with the Royal Army Medical Corps from 1914 onwards and attained the rank of major. He was appointed Assistant Adviser in Pathology in the Rouen Area.

It is anticipated that Dr. Patterson will take up his duties at the Walter and Eliza Hall Institute on October 1, 1919. Before leaving England, he will take part in the selection of a First Assistant and will purchase apparatus, books and journals for the Institute.

Reviews.

HYGIENE.

The sixth edition of Parkes and Kenwood's "Hygiene and Public Health,"¹ which appeared four years after the fifth, maintains the high standard of excellence and thoroughness set up by the authors from the first. A new chapter on maternity and child welfare has been added. In this chapter the authors narrate the sequence of events which have led to the introduction of women health inspector visiting, of the early notification of births, of the infant consultation centres and clinics and of other social legislation aiming at the amelioration of unfavourable conditions attending the women of the poorer section of the community during the latter months of pregnancy and during child-birth and the lying-in period. Another novelty in this edition is a short memorandum on marine hygiene by Dr. W. Hanna. Many of the other chapters have been amplified and brought up to date. The book contains valuable information for the general practitioner, as well as for the hygienist and health officer. It is not overloaded with technical details, since no one volume could contain an exhaustive account of all that is known concerning hygiene. But it enables the reader to ascertain current teaching in the various branches of this wide subject and supplementary information can readily be obtained from special manuals. It is a most useful book and reflects credit on authors and publishers alike.

PNEUMONIC INFLUENZA.

On June 6, 1919, a proclamation was issued in the *New South Wales Government Gazette*, cancelling the determination that the municipal area of Goulburn was an area infected with pneumonic influenza. A similar proclamation, dealing with a certain area in the neighbourhood of the town of Cessnock, was published on June 11, while in a further proclamation the restrictions imposed on persons in the town of Abermain were also cancelled. On the same date persons in the municipal area of Narrandera were subjected to restrictions, including masking, the closure of billiard-rooms, libraries, music-halls, etc., etc., and the insistence on the observance of certain conditions in hotel bars, schools, churches and other places of public worship. The last proclamation issued on June 11 has the effect of prohibiting travelling circuses and travelling shows from entering any town declared to be an infected area or from entering any other town without the permission of the local Council.

¹ Hygiene and Public Health, by Louis C. Parkes, M.D., D.P.H., and Henry R. Kenwood, M.B., F.R.S.E., D.P.H., Sixth Edition; 1917, London: H. K. Lewis & Co. Limited; Demy Svo., pp. 789, with two plates and 92 illustrations. Price, 14s. net.

The Medical Journal of Australia.

SATURDAY, JUNE 21, 1919.

Procrastination.

The hard school of war has taught many lessons to those who were willing to learn. The men who have achieved things in the field, have been the principle ones to profit. At the outset it was apparent that the Australian Medical Service needed careful and skilled organization, more especially in the co-ordination between the headquarters in the Commonwealth and the various branches of the service scattered over the face of the world. Throughout the years since August, 1914, we have deemed it our duty to demand a better organization in regard to certain functions of the Army Medical Service, but our repeated warnings and demands remained unheeded for months and years. In a few instances the reforms for which we pleaded, were undertaken in part after much delay. Others were resisted until the end. We have yet another demand to make in connexion with the medical officers still on active service. Past experience impels us to urge the reform persistently and with directness.

Soon after the signing of the armistice the Director-General Medical Services of the Australian Imperial Force arranged with his officers in England to grant them leave on full pay for a period of three months, when desired, for the purpose of enabling them to take advantage of the post graduate courses open to medical officers at the many medical teaching centres in Great Britain. The medical officers were given an alternative of prolonged leave without pay for the same purpose. These offers were wise and most admirable. At a somewhat later date the medical officers on service in Egypt were asked whether they would take advantage of somewhat similar arrangements if they were provided. The suggestions thrown out were that the medical officers might journey to England to benefit by the post-graduate courses for three months. In this event they would receive full pay during the three months' leave, or if

they elected to undergo a longer training, the leave would be without pay. In either case the transport to England would be free of expense. As an alternative scheme it was proposed that they might have limited leave on full pay in Australia or long leave without pay, so that they might attend post-graduate courses at one of the medical schools. It will be noted that, while these proposals were put to the medical officers in Egypt in the form of an enquiry, they bore the impress of an implied promise, and a very just and wise promise.

There has been some talk in the Commonwealth about the provision of post-graduate courses for returned medical officers. There has been some bartering and negotiation regarding the loan of medical officers on full pay to the large metropolitan hospitals. There has been a game of battledore and shuttlecock between the Department of Defence and the Repatriation Department. But the one fact remains that today we are scarcely any nearer the consummation of the object in view than we were when hostilities were suspended. The universities and the hospitals have considered the subject seriously and both are prepared to make the necessary arrangements, as soon as the Department of Defence reveals that it is in earnest. It might be said that the universities have not exhibited great energy or prompt action in setting up plans and in arranging the details in advance. The Directors of the Melbourne Hospital have set an excellent example in crystallizing their proposals and in setting forth in clear terms what they were prepared to do to meet the demand. Week after week and month after month more and yet more medical officers are returning to Australia to find that the Department of Defence has not yet awakened to the facts of the case. Instead of receiving a graceful and grateful recognition for services rendered, they are pressed to perform additional duties at the military hospitals. The Department recognizes the necessity of retaining medical officers on the staff of these hospitals, and as volunteers are not available, they delay the demobilization of the men who have completed years of valuable service overseas. The members of the Australian Army Medical Corps Reserve could be enrolled for this service. Apparently these medical officers are not eager for full-time service, or even for part-time service, as they have not volunteered, but it would be

preferable to take them from their practices for a time than to retain the men who have served abroad. A useless offer has been made by the Department of Defence in regard to returned medical officers still performing military duties. It is that they can be given leave for post-graduate study or for civil hospital practice, equivalent to one third of their time. But this fraction of time is not reckoned as one week in three weeks or one month in three months. It is to be reckoned as one third of each day. The offer has obviously been made without any understanding of medical education or post-graduate training.

We recommend to the consideration of the Department of Defence the proposal that from now onwards the medical officers returning to the Commonwealth be allowed to remain in the service with six months' leave on full pay, if they desire to undergo post-graduate training, or if they elect, to obtain their demobilization within one week of their arrival. There has been too much delay in the past. Prompt action is needed in order that as many as possible of the returning men may benefit by this arrangement. It is being done in Great Britain; it has been practically offered to the men in Egypt. Why not at home?

THE DIAGNOSIS OF VENEREAL INFECTIONS.

We publish this week a thoughtful article by Dr. L. E. Ellis on the control of venereal infections and a summary of an important discussion by members of the New South Wales Branch of the British Medical Association on the significance of the *Venereal Diseases Act, 1918*, to the medical profession. From the utterances of the several speakers it is obvious that little heed has yet been paid in New South Wales to the experience in other Australian States in connexion with legislation aiming at the compulsory treatment of every case of infection. The statement that the acts in Western Australia, in Victoria, in Tasmania and in Queensland have proved failures is both erroneous and unjust. In Western Australia the measures adopted have undoubtedly led to an appreciable reduction of infection, even in the short time since their adoption. In Victoria there has been excellent progress, although a fatal mistake was made in bringing the *Act* into operation long before sufficient accommodation was provided for those found

to be infected. A start has been made in Tasmania and it is a promising one. Certain circumstances militate against rapid success in the island State at present, but this is far from failure. In Queensland the new *Act* will without doubt be instrumental of much good, if its administration is improved. Dr. Richard Arthur has gauged the value of these measures to a nicety when he forecasted that the success of the New South Wales *Act* would depend on the manner in which it is administered.

The Australian acts aim at a reduction of venereal infection by an attempt to render the sources of infection harmless and eventually to remove them altogether. In ordinary circumstances this cutting off of sources of infection is approached directly. Isolation rather than treatment is usually relied on. Moreover, the recognition of the sources is facilitated by the full disclosure of information by the medical practitioner to the health authority. As the notification of venereal infections is carried out by number and not by name and address, notification plays but a secondary part in the campaign to control these infections. The success of these measures much depend primarily on the opportunity given to the medical practitioner to deal with cases of venereal disease, on his ability to diagnose the condition promptly and accurately, on the efficacy of the treatment employed, not necessarily to cure but to destroy the infectivity of the patient and finally on rigorous punishment of persons who defy the law, either by refusing to submit to treatment at the hands of a registered medical practitioner, or by exposing others to an infection, or by failing to notify an ascertained infection. A great deal of venereal infection occurs in persons who should be treated at or in hospitals. The public has a right to expect that modern methods of diagnosis are applied in these institutions. In every hospital of sufficient size to justify the term of general hospital, there should be a trained pathologist, competent to carry out the diagnostic tests required in the diagnosis of syphilis and gonorrhœa. It is of the utmost importance that the responsible medical practitioner in the laboratory should control or actually carry out the titrating of the immune sera used for the Wassermann test, should control or actually carry out the setting up of the test and should himself determine the results at the end of the fixed time. Similarly no

diagnosis should be made of the finding of *Spirochæta pallida* or of the gonococcus unless the medical officer in the laboratory who signs the certificate, has actually identified these organisms himself. No medical practitioner would be allowed to delegate his task of making a diagnosis of an ordinary medical or surgical affection to a lay secretary, nurse or dispenser. He must do it himself. In private practice the same rules should apply. The laboratory diagnosis should be carried out by a private practitioner who devotes his energies and practice to laboratory work. It is fundamentally wrong to allow a patient who is prepared to pay for his medical attendance, to obtain the diagnosis from a public health laboratory free of charge. This is as much an encroachment on the private practitioner as is the treatment by the medical inspector of school children of defects discovered at an inspection. The diagnosis of venereal infections in both hospital and private practice requires what is known across the Pacific as "team work." There is no doubt that as the demand arises, medical practitioners will find it worth their while to be trained in the laboratory for this purpose. The serological tests and the identification of the causal organisms of the various forms of venereal infections involve an intimate acquaintance with laboratory methods which cannot be acquired save by prolonged and expert tuition. Facilities will be provided in each of the medical schools of our universities for a thorough training in laboratory technique and we are convinced that competent students who undergo this training, will discover that their energies have been spent to material advantage. Much venereal disease will be prevented in Australia with the aid of the new acts if the medical practitioners make an honest attempt to recognize these infections whenever they are present in patients submitting themselves for treatment and if they apply the appropriate remedies in the most efficacious manner.

EPIDEMIC ENCEPHALITIS.

A disease known under the name of *encephalitis lethargica* has been declared by the Federal Quarantine Service to be a quarantinable disease and it is reported that a case has been observed in a soldier in Tasmania. This disease is spoken of in the lay press as a new clinical entity and we appear to be fostering this conception by the adoption of an unfortunately inappropriate name. It has been stated that it is

the patient and not the encephalitis that is lethargic in this disease. In the past whenever this epidemic form of brain inflammation appeared, it was given a fresh name and in consequence the recognition that the affection was a recurring one, was absent. One curious fact transpired in connexion with the outbreaks of 1718, 1768, 1800, 1835 and 1889-1890. It was that this affection was noted in association with outbreaks of influenza. The terms "sleeping sickness," "soporosité" and "lethargie encephalitis" are all unacceptable, since they are either misleading or confusing. Nona was the term introduced in Italy in 1890. This term has no meaning and is therefore inadvisable, if a term conveying some impression of the pathology of the condition can be substituted. From the older accounts it transpires that the affection was characterized by a peculiar form of mental disturbance, often assuming a cataleptic quality, associated with fever and facial paralysis. The mortality was high. These accounts are not very instructive, since they fail to supply a pathological and chemico-physical record to serve as a guide to the variations in the clinical manifestations. More accurate observations were made in the 1890 outbreak. It is in the recent and present infections, however, that information must be sought. Professor P. Bassoe has given an excellent account of his observations in a small series of cases.¹ He gives short clinical summaries of twelve cases and illustrates his article with eight fine photo-micrographs of the perivascular infiltration and diffuse inflammation in basal ganglia and pontine region, as well as of multiple small haemorrhages. The symptoms of the infection are described briefly as follows. The onset is gradual. The first sign usually noted is a blurring of visions, at times associated with diplopia. The patient soon becomes listless and the expression of his face becomes mask-like and fixed. The mouth is generally pucker and whistling becomes difficult or impossible. There is a loss of sleep and no somnolence. He points out that the lethargy is not a real character, but its appearance is a sign of the involvement of the cerebral mechanism of expression, as a part of a general effection of the tonus-regulating apparatus. In severe cases the movements of the body become slowed and there may be actual rigidity. The patient may lapse into a pseudo-cataleptic state. In this condition passive interference results in a coarse tremor. Chorea-form jerking may be well marked and may be accompanied by profuse sweating and a rapid pulse-rate. There is often difficulty in speaking and in swallowing. Ocular and facial paralyses are seen in some cases. Professor Bassoe points out that it is possible to distinguish between those cases in which the basal ganglia are more especially involved and those in which the preponderating lesions are situated in the pontine region. He recognizes a type of case in which the lesions are equally distributed between both areas. The brain stem around the aqueduct of Silvius and the third ventricle is not infrequently involved in the early stages of the affection. A study of the brains after death has taught him that the necrotic and destructive lesions of poliomyelitis are absent and that the cortex and the meninges are but little affected. The dense

¹ Journal of the American Medical Association, April 5, 1919.

accumulations of mononuclear cells around the vessels and numerous small haemorrhages are characteristic of epidemic encephalitis.

In regard to the association of the outbreaks of influenza and the outbreaks of encephalitis, he remarks that the majority of the patients have apparently not been ill with the former. Nearly all his patients were in a more or less "run down" condition, and he suggests that this had provided a lowered resistance which gave the virus an opportunity of becoming localized in the brain. It is useless to speculate whether this affection is caused by the same virus as is influenza or not, since the causal organism of either disease is not known.

THE RELATION OF VITAMINES TO SCURVY.

It has been revealed by the researches of McCollum and Davis that two accessory substances are concerned with the nutrition of rats and other animals. The chemical constitution of these bodies has not yet been ascertained, so that they are known as the fat-soluble and the water-soluble principles. The fat-soluble body is found in nature mainly associated with fats and oils of animal origin. The studies of McCollum and Kennedy and those of Drummond have shown that the body soluble in water is probably identical with the vitamin which prevents the onset of neuritis and which so readily cures the polyneuritis following upon the unsuitable feeding of birds. The fat-soluble vitamin appears to be necessary for maintaining growth. In addition, there seems to be some evidence that scurvy is due to the absence of some similar principle from the diet. It has been shown from numerous experiments that the omission of anti-scorbutic substances from rations of purified food-stuffs does not interfere with the growth and reproduction of rats. On the other hand, guinea pigs show symptoms of scurvy in two or three weeks when fed upon a diet of oats, bran and heated milk. Monkeys commence to exhibit the lesions of scurvy in ten to twelve weeks when anti-scorbutics are withheld from their rations. In the human subject scurvy does not manifest itself on a scorbutic diet until six or eight months have elapsed. The view has recently been expressed by McCollum and Pitz that the scorbutic condition in guinea pigs is produced by an unsuitable mechanical state of the food and is not due to the absence of any accessory principle. This opinion has been controverted by A. Harden and S. S. Zilva who consider that the evidence against the existence of an anti-scorbutic vitamin is not conclusive. These investigators have continued their experiments at the Biochemical Department of the Lister Institute of Preventive Medicine, London. They now bring forward facts¹ to prove that rats thrive better on rations to which an anti-scorbutic substance is added, although they increase in weight and are capable of reproduction when fed on a diet which leads to the lesions of scurvy in guinea pigs.

The rats have been fed in groups on a basal diet of 75 parts of starch, 20 parts of caseinogen and 5 parts of salts to which the accessory principles have been added. The salts have consisted of sodium chloride, magnesium sulphate, calcium lactate, ferric cit-

rate and phosphates of sodium, potassium and calcium. The fat-soluble principle has been supplied in butter fat, the anti-neuritic factor in autolysed yeast and the antiscorbutic principle as lemon juice from which citric and organic acids have been removed. A group of young rats has been fed on a ration containing 1.8 gm. butter fat daily and the equivalent of 5 gm. lemon juice. In three weeks the animals begin to lose weight and die in five weeks. Some of these rats have developed nervous symptoms. A microscopical examination of nerve fibres from the sciatic nerves of these animals has revealed no degenerating fibres. In one animal there have been a few curiously eroded nerve fibres which have been regarded by Miss F. M. Tozer as possibly indicating the earliest stage of degeneration. Another group has received a ration to which 2.5 c.c.m. olive oil and 5 c.c.m. autolysed yeast has been added. These rats have succumbed within a period varying from 8 to 14 weeks. During the first month the rats have gained weight. The animals have then ceased to grow and have lost weight a few days before death. They have exhibited xerophthalmia in acute form. A third group has received the equivalent of 5 c.c.m. lemon juice as well as autolysed yeast juice. The animals of this series have died in 8 to 14 weeks. These experiments show that lemon juice cannot replace the fat-soluble and water-soluble accessory principles in the food of rats. As the caseinogen in these experiments had been extracted with ether and alcohol the experiments have been repeated with the crude caseinogen as it has been feared that the continued extraction might have injured the protein. The rats have lived longer on the crude caseinogen and have gained weight for about 8 weeks. Growth has then been suspended and the animals have died in 5 to 7 months. Most of the animals have displayed xerophthalmia. Two groups of rats have finally been fed on rations differing only in the presence of the equivalent of 5 c.c.m. lemon juice in one ration. The rats receiving the lemon juice have grown more rapidly. It would thus appear that rats living on a diet containing an anti-scorbutic principle as well as the fat-soluble and water-soluble accessory substance grow better than rats not receiving the anti-scorbutic principle in their diet.

Unfortunately the number of animals used in these experiments has not been very large. The rats do not appear to have grown as well on the ration without lemon juice as has been observed in other laboratories. It is, therefore, to be desired that these experiments will be repeated on such a scale and with such variations in the diet as will afford a definite answer to the question of the existence of a special anti-scorbutic vitaminine.

THE VICTORIAN FRIENDLY SOCIETY LODGES.

The Friendly Societies Association in Victoria is one of the most irrepressible bodies in existence. During the early stages of the dispute this society endeavoured to conduct the negotiations between the friendly societies and the Victorian Branch of the British Medical Association, but it soon became quite evident that the society possessed no powers to bind

¹ *Biochemical Journal*, Vol. XII., p. 408, December, 1918.

the individual orders or lodges in any agreement that might be arrived at. This defect was pointed out in unambiguous terms after a few futile attempts had been made to drive the Victorian Branch to make bargains. Later the same society again appeared on the scene as negotiator and claimed that it possessed influence and practical control over the orders and lodges. The influence vanished when half the orders refused to accept the advice given and the practical control has been sought but not found. In these circumstances it is not surprising to learn that the Council of the Victorian Branch of the British Medical Association should refuse to waste time and energy in discussing the agreement with this elusive body. The Friendly Societies' Association invited the Victorian Branch to a conference and held out the bait of a settlement if the latter would make concessions on the questions of the medical institutes. Were the Council of the Branch not very wide awake, this form of tactics might prove highly disadvantageous to the medical profession.

Public Health.

SOUTH AUSTRALIA.

The following notifications have been received by the Central Board of Health, Adelaide, during the five weeks ending May 31, 1919:—

	Adelaide.			Rest of State.			Total.	
	Cs.	Dths.	Cs.	Dths.	Cs.	Dths.	Cs.	Dths.
Enteric Fever	1	0	13	4	14	4		
Scarlatina	7	1	170	1	177	1		
Diphtheria	21	2	167	4	188	6		
Pulmonary Tuberculosis	6	13	22	21	28	34		
Erysipelas	0	0	8	1	8	1		
Morbilli	3	0	84	0	87	0		
Pertussis	1	0	34	0	35	0		
Influenza	427	82	2263	42	2690	124		
Puerperal Fever	0	1	2	0	2	1		

TASMANIA.

The following notifications have been received by the Department of Public Health, Tasmania, during the month of May, 1919:—

Diseases.	Hobart.	Launceston.	Country.	Whole State.	Cases.	Cases.	Cases.	Cases.
Enteric Fever	3	1	10	14				
Diphtheria	7	27	64	98				
Pulmonary Tuberculosis	4	2	10	16				
C'b're-Spinal Meningitis	0	0	1	1				
Ophthalmia Neonatorum	1	1	0	2				

WESTERN AUSTRALIA.

The following notifications have been received by the Department of Public Health, Western Australia, during the month of May, 1919:—

	Metro- politan.		Rest of State.
	Cases.		Total.
	Cases.	Cases.	Cases.
Enteric Fever	17	13	30
Scarlatina	52	23	75
Diphtheria	97	36	133
Pulmonary Tuberculosis	26	28	54
Tubercular Meningitis	1	0	1
Erysipelas	6	1	7
Malaria	49	2	51
Beri-beri	0	5	5
Dengue Fever	0	6	6
Hæmaturia	1	1	2
Ophthalmia Neonatorum	1	0	1

NEW ZEALAND.

The following notifications have been received by the Chief Health Officer, Department of Public Health, Hospitals and Charitable Aid, New Zealand, during the four weeks ending April 21, 1919:—

Diseases.	No. of Cases.
Scarlatina	125
Diphtheria	304
Enteric Fever	34
Pulmonary Tuberculosis	83
Cerebro-Spinal Meningitis	5
Poliomyelitis	1
Puerperal Septicæmia	7
Influenza	302
Morbilli	8
Erysipelas	6
Ophthalmia Neonatorum	5
Hydatids	4
Septicæmia	3

Hospitals.

THE CHILDREN'S HOSPITAL, PERTH.

In the annual report of the Committee of the Children's Hospital, Perth, for the year ending September 30, 1918, it is pointed out that the Government had been approached in August, 1917, for assistance. The financial position of this hospital had become extremely embarrassed. It was then agreed that the annual subsidy should be increased from £3,000 to £10,000. At a later date, however, the Government intimated that only an additional £3,000 had been granted. The Government expressed the wish that the Committee should make an endeavour to carry on. During the year the expenditure exceeded the income by £895 and, at the same time, the hospital was in the Government's debt to the extent of £8,000. The total cost of maintenance amounted to £12,354. In view of the valuable work carried out at this institution and of its significance to the public, the Government should provide a sufficient sum of money to relieve the Treasurer of his embarrassment.

During the course of the year 1,536 children were admitted to the institution. There were 72 in the hospital on September 30, 1917, and 98 on September 30, 1918. The number of deaths was 124, of which 29 took place within 24 hours of admission. In 106 instances the patients who died were under two years of age. The total mortality was 8.14% and not 7.71%, as stated in the report. The Hospital contains 100 beds and the average number of patients in the Hospital at one time was 88.78. The average number of days during which the patients were under treatment was 18.21. The Chief Resident Medical Officer, Dr. K. Aberdeen, points out that there are difficulties connected with the adequate treatment of infants. The accommodation is insufficient for the infants suffering from summer infections. There is a reluctance on the part of many mothers to allow their babies to be admitted until it is obvious that they are dangerously ill. He found that it was impossible to do much with these patients in the out-of-date and overcrowded out-patient department. There were 302 cases of diarrhoea and enteritis among children under two years of age with 42 deaths, while bronchitis, broncho-pneumonia and lobar pneumonia affected a further 219 children and killed 25 of them. A very large amount of excellent work has been carried out in the institution, often under great difficulties. This institution has many structural defects which are being gradually eliminated. The laundry represents the part in most urgent need of reconstruction. Some of the newer verandah wards are very excellent, but there are still too many wards cramped into a small space and quite unsuited for the treatment of infective processes. It is greatly to the credit of the resident and honorary staffs that the death-rate is kept at so low a level.

Abstracts from Current Medical Literature.

OPHTHALMOLOGY.

(215) Plastic Surgery of the Eyelids.

War injuries of the eyelids have given T. Harrison Butler the chance of learning much about the plastic surgery of this region (*Archives of Ophthalm.*, March, 1919). The cases consist of deformities and malposition of the lids, and, secondly, actual loss, partial or complete, of one or both lids. The operations employed to remedy the defects are the use of pedunculated flaps, "VY" and sliding operations and grafting. Of these, the pedunculated flap gives the best and surest results. The "VY" or Wharton-Jones operation is seldom effective. The technique of the flap operation is simple. An incision is made along the edge of the displaced lid and all adhesions and bands separated. The length and width of the defect are measured with compasses and a suitable flap marked out. It starts from the outer edge of the wound upwards for the same length as the wound. The outer incision is not carried as low down as the inner, the part left below being as long as the flap is wide. The flap is then freed and stitched with catgut over the defect. The flap is taken preferably upwards from the temple, but if that is impracticable, from the cheek. Cavities left after the lid is freed may be filled with fat from the buttock. An eyebrow may be made by halving the fellow brow and turning over the flap. An eyebrow flap may also be used in certain cases to make an edge of eyelashes. The Esser method of making an epithelial graft is carried out as follows. The incision is made along the lid and the skin undermined so as to form a pouch. A piece of dental moulding wax is warmed and moulded to fit the pouch. It is then covered by an epithelial graft, which is sown over it and inserted into the pouch. The skin is then sutured over the graft and left for a week. The skin is then incised and the mould removed, leaving a skinned cavity which flattens out and relieves the ectropion. Burned surfaces should be grafted early, to prevent contraction. A serious deformity is best approached by stages.

(216) Treatment of Prolapse of the Iris.

A. Maitland Ramsay considers prolapse of the iris to be in all cases a serious event, as the uveal tract is opened to infection, which may endanger the other eye as well (*British Journ. Ophthalm.*, November, 1918). Prolapse follows a perforating ulcer of the cornea or a penetrating wound. When the latter is the cause, the treatment depends in large measure on the interval of time since the accident. A recent prolapse following injury should be excised under the strictest aseptic conditions. The iris should be caught by forceps and while on the stretch cut by scissors, the blades being paral-

lel to the corneal margin and pressed backwards against the eyeball. No tag should remain adherent to the wound in the cornea. The wound should then be covered by a flap of conjunctiva, formed by undermining at the seat of injury and sutured. If the prolapse has existed for some days and is firmly adherent to the lip of the wound, it may be wisest to leave it alone, even taking the chance of subsequent glaucoma or late infection. If possible, it is better to operate with great care and consideration. The iris should be separated thoroughly from the lips of the wound with a small probe before excising it. Prolapse following a corneal ulcer is interfered with only when with its covering it becomes a progressive staphyloma. The prolapse is burned down to the level of the cornea by a galvano cautery, without opening the anterior chamber, and covered with a freely separated conjunctival flap.

(217) Intraocular Pressure and Tonometry.

William McLean has invented a new tonometer in which he claims are abolished certain disadvantages and annoyances formed in the Schiötz and Grable instruments (*Archives of Ophthalm.*, January, 1919). The usual method of determining the intraocular pressure experimentally is by introducing a canula into the eye and connecting this with a manometer. Many experimenters have worked on dogs, rabbits and cats and have found that the intraocular tension in these animals varies from 18 to 35 mm. of mercury. In the author's experiments he uses a needle of 0.8 mm. bore for the aqueous and 2 mm. for the vitreous, attached to a water manometer, but graduated in millimetres of mercury. An interesting fact elicited is that the pressure under general anaesthesia is less than that under local cocaine anaesthesia, e.g., the first rabbit registered by the Schiötz 17.5 mm. with cocaine and 12 mm. under ether. The canula introduced in the anterior chamber registered on the manometer 33 mm. and as the anaesthetic was increased 29.5, 25 and 22 mm.. The author has had the opportunity of registering with the manometer the pressure of three living eyes *in situ*. The Schiötz reading of this blind eye was 75, the fellow healthy eye being 19. Under ether the readings were 45 and 10. With the canula in the vitreous the manometer reading was 65 mm.. Tests made on this eye after enucleation gave the same ratio of variation between the manometer and Schiötz readings. By means of tests in nearly 200 enucleated eyes the present scale on the McLean tonometer was adopted.

(218) Glaucoma Treated by Trephining.

A. E. J. Lister has some observations on the treatment of glaucoma, based upon the following case (*British Journ. Ophthalm.*, November, 1918). Briefly, a man of 50 had trephining done for chronic glaucoma, with the result that his vision was considerably reduced and his eye became soft. The tension was raised; the vision improved by the

use of atropine. Shortly after the glaucoma returned and a second trephining was done. This time the result was quite satisfactory. No glaucoma operation is perfect; for acute glaucoma the author prefers iridectomy; for subacute cases he performs iridectomy, followed by trephining if the tension rises. For simple glaucoma he is pleased with Elliot's operation as regards its immediate results, but fears late infection. His mind is not made up on this point. Iridectomy is often followed by an immediate lowering of vision, which is particularly unfortunate in Indian patients, who are not seized with the root of the matter. This is an argument in favour of trephining.

(219) Hysterical Disorders of Vision.

Lewis R. Yealand gives some useful hints on hysterical affections of vision. The first essential is to let the patient see that his case is understood and that it will respond rapidly to treatment. The patient must be restored at one sitting (*Brit. Journ. of Ophthalm.*, November, 1918). Visual disturbances are the least common of hysterical manifestations. They may be divided into two classes: (1) those in which the contraction of antagonists may be demonstrated; (2) those in which contraction of antagonists cannot be demonstrated. Blepharospasm is a typical example of the first class. Failure of vision is due to the inability the patient experiences in attempting to open the eyes. Instead of the *orbicularis* relaxing, it contracts and overmasters the *levator* and the eyes remain shut. The patient is seated six metres from a vision card and a faradic current applied to the closed lid until he can open it and read %. The treatment is continued, possibly for an hour, till he reads %. Ptosis is treated in the same manner. Spasm of accommodation may be included in this first group if the suspensory ligament is regarded as the antagonist of the ciliary muscle. The faradic current is employed to re-educate the patient to see near and distant objects. The patient is made to read letters on the vision card first at six metres; the card is then brought closer and closer to the patient, and when read correctly is brought back again to its former distance. Class II. includes limitation of the fields of vision and amblyopia. The use of Bjerrum's screen readily shows inconsistencies in the patient's fields. Faradism during field testing results in cure. Amblyopia by itself is very rare, and in the author's experience always monocular. If unattended by other signs of hysteria, it is probably simulated.

LARYNGOLOGY AND OTOLGY.

(220) The Classification of the Syndromes of Associated Laryngeal Paryses.

Involvement of the recurrent laryngeal nerve by aortic aneurysm, oesophageal cancer, goitre, etc., may result in paralysis of a vocal cord alone, but when the nerve is traced proximally its anatomical relations with the four last cranial nerves become so intimate

that every cause of compression or physiological change affecting its fibres involves the participation of one or more of these nerve trunks. A variety of combinations of associated paralyses may result, motor, sensory and special-sense. These syndromes have hitherto been variously classified by the names of investigators, by the names of organs affected, etc. Maurice Vernet (*Journ. Laryng., Rhin., Otology*, December, 1918) holds with Sicard that "the only classification that has any practical importance is that which conforms to the topographical, lesional, as well as the aetiological diagnosis." He therefore proposes an anatomo-physiological classification, each paralysis or paralytic syndrome being precisely designated by each or all of the nerve-trunks concerned in each of them. Thus the Huglhings Jackson, or tongue-soft palate - larynx - trapezius - sternocleidomastoid syndrome, becomes spinal and hypoglossal paralysis. He presents a simple diagrammatic schema wherein the various combinations are set out. The internal branch of the eleventh (spinal), which is the motor nerve of the larynx, is represented at the intersection of the diagonals of a square. At the extremities of one diagonal are figured the twelfth (hypoglossal) and ninth (glossopharyngeal), at the extremities of the other the eleventh (external branch) and the tenth (pneumogastric). By coupling up the extremities with the intersection of the diagonals and with one another the various groupings concerned in the syndromes are obtained. The tenth may or may not take part in all the groupings. A lesion of the intersection corresponds to the Avellis syndrome. The hemidiagonals near the eleventh (external branch), twelfth and ninth couple respectively the nerves involved in Schmidt's, Jackson's and Vernet's syndromes. The sides of the square contiguous to the eleventh (external branch) may be included in Jackson's and Vernet's. In the Collet-Sicard syndrome, which involves the four last cranial nerve trunks, the lesion is intracranial, as it also is in Jackson's, which involves the tenth, eleventh and twelfth nerves. Vernet's (ninth, tenth, eleventh) and Schmidt's (tenth and both branches of eleventh) represent lesions in the *foramen lacerum posterior*. Extracranially occur Avellis's syndrome (tenth and internal branch of eleventh) and Tapia's (tenth, laryngeal and cardio-moderator fibres of eleventh and twelfth). The pneumogastric is now considered by physiologists to be a purely sensory nerve, but its reactions must be considered when investigating the paralytic phenomena of the syndromes. Vernet recalls the symptoms of paralyses of the four last cranial nerves. Ninth: Paralysis of the superior constrictor of the pharynx (curtailed movement of the posterior wall, disturbance of deglutition of solids), disorders of taste (posterior one-third of tongue). Tenth: Disorders of the sensibility of the half of the soft palate, of the pharynx, of the larynx, of the auricular branch; disorders of salivation, coughing crises; respiratory

disorders (intermittent dyspnoea and pseudo-asthma). Eleventh: Internal branch, hemiparalysis of the soft palate and larynx, acceleration of pulse; external branch, paralysis of the sternoclavicular, mastoid and trapezius. Twelfth: Hemiplegia of the tongue. By analysing the symptoms ascertainable in a case of associated paralysis the nerves involved can be readily recognized. All these syndromes may be realized by a bulbar lesion, but in such cases they are, as a rule, merely symptoms in some disease involving the cerebro-spinal axis, such as in hemiplegia, hemianesthesia, tabes, disseminated sclerosis, syringomyelia, etc. Thus each simple syndrome formed at the expense of the last four cranial nerves ought to be considered as peripheral, every other syndrome as central. The reaction of degeneration cannot be taken as characteristic of a paralysis of peripheral origin, nor can the cerebro-spinal fluid, by itself, reveal whether the lesion is endo- or exo-cranial. The diagnosis should be formed from the manner of onset and evolution of the symptoms, from an examination of the sensory and motor conditions and from other clinical signs—ocular phenomena, reflex movements, etc.

(221) Pulmonary Collapse Consequent on Laryngeal Papilloma.

The plea for the performance of early tracheotomy in cases of gradually advancing stenosis of the larynx, receives support from the outcome of a case reported by C. H. McIlraith (*Journ. Laryng., Rhin., Otology*, September, 1918). The patient, a child of 22 months, was admitted to hospital suffering from aphonia, of some months' duration, and dyspnoea which had been increasing for the preceding fourteen days. The breathing was markedly stridulous during both inspiration and expiration, the latter being somewhat prolonged. There was marked in-drawing of the lower ribs, the chest was resonant everywhere and coarse râles were general, back and front, on inspiration and expiration. The larynx was found almost completely blocked by a large mass of papilloma. The temperature was normal. Under chloroform anaesthesia the greater part of the mass was removed and a good air-way established, but the breathing continued to get worse. Tracheotomy was therefore performed 24 hours later, but without giving relief: little air appeared to enter the lungs and there was no response to irritation of the tracheal mucosa. The subcutaneous tissues of the neck, chest and flanks became swollen and emphysematous. The muscles of respiration acted more and more forcibly and jerkily, inspiration grew weaker and death took place 18 hours after the tracheotomy. At the autopsy the lungs were found completely collapsed, cut portions sinking in water. The bronchi were not obstructed. There was emphysema of the mediastinum and around the roots of the lungs. McIlraith considers that the findings in this case confirm the ball-valve theory of collapse of the

lobules of the lungs, the growth in the larynx representing the ball-valve. Collapse of the lungs, partial at any rate, must have already taken place before tracheotomy was performed and, as the resiliency of the air-cells had been impaired, the operative measures were unavailing in giving relief, the over-action of the chest muscles and diaphragm failing to overcome the collapse of the air-cells. Negative pressure would tend to draw air from the tracheal wound into the tissues and would promote the absorption of the residual air from the partially collapsed lungs. St. Clair Thompson adds a note to the effect that in cases of gradually advancing stenosis of the larynx or trachea, the patients so readily adapt themselves to the reduced ration of tidal air that the stealthily augmented air-starvation is not noticed and there is increasing back-pressure on the heart, which results in cardiac failure and death, even though a free air-way has been established.

(222) Sarcoma of the Tonsil.

Three cases of sarcoma of the tonsil are described by Douglas Guthrie in the October, 1918, number of the *Journ. of Laryng., Rhin., Otology*. There have only been 80 cases recorded in literature. In these the disease was twice as common in men as in women. The decade 50 to 60 gave the largest number in both sexes. The patient usually first complained of a painless lump in his throat. It is practically always unilateral and remains for a long time confined to the tonsil and within its capsule. At this stage it may be readily and completely removed, the glands being as yet unaffected. It may cause a swelling of the palate and be mistaken for quinsy. "Thick" speech is an early symptom. Dysphagia, dyspnoea and haemorrhage are late symptoms. In 30 cases, too far advanced for operation, temporary improvements followed palliatives such as Coley's toxins, ligature of the external carotid artery, X-rays, arsenic internally, etc. In 21 cases external laryngotomy and division of the lower jaw (Mikulicz's operation improved by Vohsen) was carried out, and in 27 cases enucleation of the tonsil by dissection through the mouth. Glands were removed at time of operation or subsequently. Only 10 patients of 33 traced remained free from recurrence, 4 being alive and well three months after operation, and 6 a year later. Of the latter, three had had external pharyngotomy and three enucleation.

(223) Ticking in the Ears.

A case of objective and subjective ticking in the ears in a girl of eleven years is reported by W. H. Jewell (*Journ. Laryng., Rhin., Otology*, August, 1918). The symptoms had been present three months and were audible at three metres distance. They were synchronous with the clonic contractions of the tensor and levators of the soft palate, which were 150 per minute. During sleep, swallowing, or on deep pressure behind the angle of the jaws they were absent. They were not associated with any blepharospasm or movements of the tympanic membranes.

British Medical Association News.

MEDICO-POLITICAL.

A meeting of the New South Wales Branch was held on May 30, 1919, at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, Dr. F. P. Sandes, the President, in the chair.

Dr. R. H. Todd opened a discussion on "Problems in Connexion with the *Venereal Diseases Act, 1918*."

Dr. R. H. Todd stated that he had been asked by the Organization and Science Committee to open the discussion on the problems which the new *Venereal Diseases Act* presented for solution to the medical practitioner. He proposed to give a brief account of the Act itself and of its bearing upon medical practice and to enumerate as clearly as circumstances permitted the questions to which a practitioner who proposed to treat venereal diseases, would be required to direct his attention.

They were not concerned with the policy of the Act, that is to say, with the wisdom or unwisdom of making it compulsory for people with venereal disease to submit to treatment. Nor were they concerned with the wisdom or unwisdom of imposing on medical attendants the duty of notifying the cases to the Commissioner appointed under the Act. In regard to the policy of the Act, it might be stated that every State in Australia, except South Australia, had a similar enactment; and that the main provisions of the Act had been accepted, after careful consideration, by the Councils of all the Branches, except possibly South Australia, and by the Federal Committee of the Association in Australia.

The Act was assented to on December 19, 1918, but it did not commence and take effect until a date to be proclaimed by the Governor (Section 30); it might come into operation either generally throughout New South Wales or throughout any area or areas which might be defined in the proclamation. The date, it was understood, had not yet been fixed. Apparently there were many preparations to be made before the Commissioner could effectively administer the Act.

The Act provided for compulsory treatment and the two corollaries of this, namely, prohibition of treatment by unqualified or irresponsible persons and compulsory notification of all cases. The rest of the Act was subsidiary or supplementary. The sections which were of essential interest to the medical profession were those embodying provisions as follows:—

- (i.) Section 2: Defining venereal diseases.
- (ii.) Section 3: Treatment to be by medical practitioner only.
- (iii.) Sections 4 to 8: Persons suffering from venereal disease to place themselves under treatment and continue under treatment till cure effected.
- (iv.) Sections 9 and 10: Medical practitioner to notify the Commissioner (i.) of all persons consulting him, etc., (ii.) of name and address of patient failing to continue treatment.
- (v.) Section 11: Duty of the medical practitioner to deliver to his patient printed matter, as prescribed, containing warnings, directions and information.
- (vi.) Section 12: Information to the other party to an intended contract of marriage given by a medical practitioner to be a privileged communication.
- (vii.) Section 14: Certificates of cure or freedom from venereal disease.

(1) Diagnosis.—Section 2 defined venereal disease as meaning gonorrhœa, gleet, gonorrhœal ophthalmia, syphilis, soft chancre, venereal warts, or venereal granuloma. He raised the question whether the diagnosis of all these conditions was so uncomplicated as to be free from risk of mistake? If not, what were the risks of diagnosis?

(2) Procedure.—(a) Section 4 compelled a person suffering from venereal disease or suspecting that he was so suffering, to consult a medical practitioner or attend a hospital within three days of becoming aware of his condition. Did any obligation in respect of notification rest on the medical practitioner if the three days were exceeded? Would the regulation to be made, providing a form for notification, require information in regard to the stage of the disease?

(b) Section 5 compelled him (i.) to have attention at least once in every period prescribed by the regulation.

The penalty to be imposed was £20. (ii.) To follow the advice given. The penalty for default was £20. There would appear to be no obligation in this case on the medical attendant to take any steps towards a prosecution. On the other hand, he might decline to treat the patient further, and the effect would be that the patient would have to seek another medical attendant or submit to the consequences. There was no provision for the medical attendant to report to the Commissioner that he was unwilling to continue attending a patient.

(c) Section 7 *inter alia* compelled him, in the event of passing from one medical attendant ("A") to another ("B") to inform "B" of "A's" name. It also compelled "B" to notify "A." The penalty mentioned in this section was £5. The observance of this obligation by "B" was an important link in the chain of continuity of treatment. It would seem that the success of the procedure would largely depend on patients giving their right name and address.

(d) Section 9 (1) compelled a medical practitioner who was aware that a patient was suffering from a venereal disease, to notify the Commissioner on a prescribed form within a prescribed period. The penalty was from £20 to £100. This compulsory notification was a necessary corollary of compulsory treatment. Upon its observance by medical practitioners the whole structure of the Act depended. It was an inroad into the sacred fundamental Hippocratic doctrine of professional secrecy, and there would be an inherent reluctance to giving effect to the section, at all events, in certain cases, especially in cases where the patient had come not knowing that the symptoms complained of were due to a venereal disease. The notification, however, did not include the name and address, but merely such particulars as, it was thought, would enable the person to be identified in case of his contravening the Act. It might be spoken of as "anonymous" notification.

(e) Section 10 (1) compelled the medical attendant to notify the Commissioner in the event of the patient failing to attend for further treatment during the prescribed period or within ten days thereafter. The penalty for the first offence was £20, and for the second or subsequent offence £100. The importance of this notification was almost as great as that of the original notification and, on that account, a high penalty was imposed. In this notification the name and address of the patient were given. It was clear that practitioners who did this work, would have to keep their books so as to show at a glance at what dates in the future a particular patient was due to receive treatment. It was worth considering whether the Commissioner could not provide uniform books or cards for the purposes of the Act.

(f) Section 14 (1) compelled any medical practitioner, subject to the provisions of the Act and the Regulations, if satisfied that a person was cured of, or free from venereal disease, or was no longer liable to convey infection, to give him, at his request, a certificate to that effect. The penalty for false certificate was £50. This raised the very important question as to what evidence was to be taken as satisfactory that those qualities and characters on which infection depended, did not exist; and as to what constituted evidence that the disease was cured. No doubt the Regulations would determine these points, and would also prescribe that only medical practitioners approved by the Minister would be available to carry out the necessary bio-chemical, microscopic or other tests and examinations which would have to be made. A full discussion of these points might throw light on the relative value and the reliability of tests and microscopic appearances.

(g) Section 4 (3) imposed a penalty of £100 on a medical practitioner who divulged otherwise than in accordance with the provisions of the Act the name or address, furnished to him under the Act, of a person suffering from venereal disease. In addition to the penalty he was deemed to be guilty of "professionally infamous conduct." It was assumed that this term was the equivalent of the term "infamous conduct in any professional respect" which was used in the *Medical Practitioners Act* and that the effect of a breach of this section would be the removal of the practitioner's name from the list of legally qualified medical practitioners. It might also be that the section would stop a medical witness from being compelled to disclose these particulars in giving evidence in a court of law. At present, in New South Wales,

and most other places in the British Empire, a medical witness could be compelled to disclose them.

(3) Practice.—There was a point of practice introduced by Section 3 (2) in reference to the signing of prescriptions. A chemist was forbidden by Section 3 (1) to prescribe for any person suffering from a venereal disease, but Section 3 (2) permitted him to dispense to the patient of a medical practitioner that practitioner's prescription, if it was dated and bore the practitioner's address and "usual signature (including the surname)." The question here was, what was meant by the "usual signature (including the surname)"? It was assumed that, although the practitioner's name might be embossed or printed on the prescription form, it would nevertheless be necessary for him to write his surname in full, in addition to the other elements of his usual signature.

There were other points in the Act of novelty and special interest to the medical profession, but they appeared, in connexion with the discussion, to be of lesser immediate moment. He instanced the position of members of the honorary staffs of hospitals in regard to their personal obligations under the Act.

Dr. W. G. Armstrong said that Dr. Todd had set before them very fully the legal provisions of the *Venereal Diseases Act*, as they affected the medical practitioner and that there was little to add to the clear review he had given. He therefore proposed to confine himself, in the main, to an elaboration of certain points which seemed to him to be of special interest to the medical officer of health. He felt considerable diffidence in discussing the legal significance of the clauses of which they had as yet had no practical experience. In the first place, he wished to recapitulate in general terms the duties as imposed by the *Act* on a medical practitioner who was consulted by a patient suffering from venereal disease.

The name, address and occupation of the patient would have to be registered by the medical practitioner personally and a distinguishing number placed against the patient's name in the register. This number would be used both in notifying the case to the Commissioner and in any other future reference. Dr. Armstrong held the opinion that, notwithstanding the fact that the *Act* did not specifically provide that this register would need to be kept under lock and key, it seemed to do so by implication. If his interpretation were correct, no secretary or assistant of the medical practitioner should have access to the register. He interpreted this in short to mean that the name and address of any person suffering from venereal disease must not be made known to any third person whatsoever under a penalty of £100 and of incurring the guilt of "professionally infamous conduct." The only conditions under which the name and address might be disclosed were (1) the event of a patient under treatment for venereal disease failing to attend the medical practitioner within ten days of a period to be fixed by the regulations, unless in the meantime a notice has been received from another medical practitioner that the patient had placed himself under the treatment of the latter, and (2) if a medical practitioner has reason to believe that a person suffering from venereal disease intended to contract marriage. In the first case the name and address of the defaulting patient must be notified to the Commissioner. In the second case the medical practitioner, after notifying the patient of his intention, might inform the other party to the proposed marriage that the patient was suffering from a venereal disease.

It would be the duty of every medical practitioner to notify to the Commissioner within a period to be prescribed by the regulations the case of every patient consulting him whom he learned to be suffering from any venereal disease. The name and address of a patient would not be disclosed in the notification. Dr. Armstrong thought that the regulations would provide for the statement of the age and sex of the patient and of a distinguishing number which would be used by the medical practitioner to indicate that patient in all subsequent dealings. He did not think that a notification would impose much clerical work. A further duty was imposed by the *Act* on the medical practitioner. He would be required to warn every patient suffering from a venereal disease of the infectious nature of that disease, of the legal consequences of infecting others and against contracting marriage until he had been certified as cured. The practitioner would have to hand to the patient certain prescribed printed information which would be supplied to him by the Commiss-

sioner. The *Act* imposed upon the patient certain definite duties. Every person suffering from any venereal disease was required to attend a medical practitioner either at a hospital or elsewhere for treatment until he had been certified as cured. The attendance would have to take place at certain periods of time, which would be prescribed by the regulations. He presumed that these prescribed periods would vary according to the different venereal diseases. There was an important point in connexion with this provision which the medical practitioner should bear in mind. By implication, the *Act* required every practitioner treating patients for venereal disease, to keep a daily register showing the dates on which each patient should attend at his consulting room. Should the patient fail to attend on or before the date on which his visit was due or within ten days of that date (failing the receipt from another medical practitioner that the patient had transferred himself for treatment) the first medical practitioner would have to notify the Commissioner of the patient's failure to attend. In this notification he would have to set forth the patient's name and address. In correspondence with this requirement, the duty was imposed upon every patient suffering from a venereal disease who changed his medical adviser, to inform his new doctor of the name and address of his former one. If the previous adviser were alive and resident in New South Wales, the new medical adviser would be required to notify the former of the fact. Dr. Armstrong held that it was clearly intended that the name and address of the patient should be given in this notice.

There was yet another duty imposed upon medical practitioners. Clause 14 provided for the giving of a certificate of cure or of freedom from infectivity to any person who had been suffering from venereal disease and who required such a certificate. The patient would have to be able to satisfy the medical practitioner that he was cured or was free from infectivity, as the case might be. The clause further provided that such a certificate was only to be given in accordance with the terms of the regulations. Dr. Armstrong stated that the regulations under the *Act* had not yet been framed. The clause, however, was similar to one contained in the Victorian *Venereal Diseases Act* and he thought it not improbable that the regulations in this connexion, when they were framed, would conform to those in force in Victoria. These regulations were most comprehensive.

(i.) In the case of syphilis no certificate of cure shall be given unless—

- (a) Three years shall have elapsed from the first appearance of the primary manifestation and
- (b) The patient shall have undergone treatment for a period of at least twelve months to the satisfaction of the medical practitioner in attendance and
- (c) There shall have been no manifestation of syphilis since the completion of the last course of treatment, provided that a period of at least three months has elapsed since same, and
- (d) A sample of the patient's blood taken at least 48 hours after an injection of salvarsan or an efficient substitute therefor shall have given a negative Wassermann's reaction when examined by a person approved by the Minister for the purpose. Provided that in the case where it is clinically inexpedient to use salvarsan or its substitutes Wassermann's test shall be negative on two occasions separated by at least one month.

(ii.) No certificate of having ceased to be liable to convey syphilitic infection shall be given unless the conditions of clause (i.) above have been satisfied; provided that a certificate may be given if two years shall have elapsed from the first appearance of the primary manifestation and the other conditions specified in such clause have been satisfied; or if three years have elapsed with two years of satisfactory intermittent treatment, even though the Wassermann reaction remain positive.

(iii.) In the case of gonorrhœa no certificate of cure shall be given unless—

- (a) All signs of inflammation shall have been absent for at least one month and
- (b) Microscopic examination by a person approved by the Minister for the purpose shall have failed to detect the presence of Gram-negative diplo-

cocci resembling those of gonorrhœa, such examination to include at least two specimens taken at intervals of at least one week.

(iv.) No certificate of having ceased to be liable to convey gonorrhœal infection shall be given unless the conditions concerning a certificate of cure have been satisfied.

(v.) In the case of soft chancre no certificate of cure or of having ceased to be liable to convey infection shall be given until the lesions have entirely healed.

(vi.) No certificate of cure of venereal disease or of having ceased to be liable to convey infection shall be given to any woman who is known to be a prostitute or who occupies visits or resides at any house known to be used for the purposes of or in relation to prostitution.

(7) No person shall use any certificate of cure of venereal disease or of having ceased to be liable to convey infection for the purposes of or in relation to prostitution.

He warned medical practitioners that they would be required, when treating persons suffering from these diseases, to sign their prescriptions with their full surname and to attach to the prescription their address and the date. Pharmacists were prohibited from dispensing prescriptions, unless these provisions were complied with. In conclusion, Dr. Armstrong stated that it was a matter of considerable interest that the penalties imposed for the infringement of provisions of the *Act* were unusually heavy. For instance, the penalty for failing to notify was a fine not exceeding £20 for the first offence and the fine was increased to £100 for the second. The majority of the penalties for other offences against the *Act* were correspondingly very heavy. The penalty imposed upon the patient suffering from venereal disease who failed to place himself under treatment, was a fine up to £100 or three months' imprisonment.

Dr. L. E. Ellis read a paper on "The Problems Connected with the Venereal Diseases Act, 1918" (see page 501).

Dr. E. H. Molesworth held that the practical value of the *Act* would depend on the loyal co-operation of the medical profession and upon the administration of the *Act* and regulations by the Commissioner appointed. In spite of heavy penalties for breaches of its provisions it would be very easy to avoid notification of selected cases, whereas the lax or too rigid administration of the *Act* by the Commissioner would also have a disastrous effect.

The principal difficulties concerning the practitioner would be those of diagnosis in the first place, and of knowing when he could safely give a certificate of freedom from infection or cure in the second. It would be advisable to have a uniform certificate, on which would be demanded the result of various tests to prove the cure or freedom from infection. It would also be advisable to have a certain minimum treatment prescribed before any such certificate could be given. He suggested that on this certificate form the period of the disease at which treatment was commenced, should be stated. The nature of the treatment and the length of time the treatment had been persisted in should also be stated, as well as the recurrence of symptoms, if any. Pathological tests should be reported and in the case of syphilis a provocative dose of salvarsan, given two to seven days before the test, should be insisted on.

He presumed that the prescribed form mentioned in Section 9 would be something in the nature of a book with a butt and a slip, the butt to be marked with the patient's name, address, etc., and the slip, to be sent to the Commissioner, to be marked only with a number corresponding to that on the butt retained by the medical attendant.

The difficulty with regard to the provision made in Section 10 that a special practitioner was compelled under pain of a heavy penalty to report to the Commissioner that a certain patient, previously reported by him anonymously, has failed to attend during the prescribed period or ten days thereafter, was a very real one. Book-keeping and card index systems, as at present used, would not remind a practitioner that a patient was overdue and, unless at each visit a mark was made in the diary that that individual was due at the latest on such and such a date, no doubt a large number of such failures to attend would be missed and a heavy penalty would be incurred by the medical attendant. This responsibility should be transferred to the Commissioner's office, from

which quarterly notices could be sent, demanding reports concerning those patients previously reported and still under treatment by the medical practitioner to whom the notice should be sent. Without this, it would be impossible to administer the section.

Dr. R. A. Noble stated that medical practitioners should be very careful in issuing certificates of cure of venereal disease. If a patient should marry after having received such a certificate and marital intercourse should light up a latent condition and cause infection of his wife, either inaccuracy of diagnosis on the part of the medical man or infidelity on the part of the husband might be proved. He held that certificates of cure of freedom from disease should only be issued by responsible workers in laboratories or specialists. A scheme for guidance in diagnosis and treatment might be drawn up by a special committee and circulated to medical practitioners.

There were so many problems requiring special consideration that it was to be hoped that the regulations under the *Act* would be carefully prepared by a representative committee of medical men before being submitted to the Government for approval.

Dr. Todd had pointed out that the *Act* made no provision for reporting a patient who had failed to seek treatment within the specified three days after infection. It would be unwise to run the risk of antagonizing the patient by reporting his case, as he had shown his willingness to be treated; but if he failed to attend regularly, he could be dealt with more severely.

Though the Government had omitted several important clauses from the draft Bill suggested to them, they had introduced a good piece of legislation and its success or failure depended much upon the spirit in which it would be received by the medical profession.

The Honourable J. B. Nash, M.L.C., was of opinion that Dr. Todd had said enough to alarm the medical profession. The prospects of having to pay heavy penalties was most disturbing. He wished, however, to combat this impression. It would depend upon the goodwill of the people and of the medical profession whether the *Act* would prove a success or not. It had been stated that the Acts in force in the other States had proved to be failures. He had no personal knowledge, but merely repeated what he had heard. He had taken part in the debate in Parliament and had been impressed by the importance that had been attached to Clause 9 Sub-section 2, which forbade a medical practitioner disclosing the name and address of the patient. Many had expressed the opinion that notification by name was needed, but the majority overruled this suggestion. This portion of the *Act*, therefore, made it a measure for the statistician. Dr. Nash contended that the *Act* protected the medical practitioner from attack on account of breaches of the Hippocratic oath. He was sorry to learn from Dr. Molesworth that he feared that medical practitioners might shelter themselves or their patients by devious devices. The *Act* depended on the diagnostic acumen of the practitioner. It would fall entirely if medical men had recourse to a subterfuge such as the diagnosis of rheumatic iritis in all cases of iritis. On the other hand, no Court could punish an individual for a mistake which was honestly made. He was convinced that the success of the *Act* would depend on the voluntary co-operation of the medical profession. Dr. Todd had said a great deal about compulsion, but it was impossible to compel people. He thought that the greatest difficulty in the application of the *Act* was to be sought in the relationship between medical practitioners.

Dr. Richard Arthur, M.L.A., said that he did not wish at that time to enter into any discussion of the *Act*. He was convinced that in the course of time it would be a means of placing the treatment of venereal disease into the hands of men who were specially qualified to carry out this treatment. In the past these diseases had been ineffectually treated and he was afraid that persons who were incompetent, would always be prepared to undertake this work as long as there was money to be made. The object of the *Act* was therefore to do away with unqualified practice in this connexion. He referred to the origin of the *Act*. He had, as Commissioner into the question of venereal diseases, invited the University of Sydney Society for Combating Venereal Diseases to draft a Bill based on the Acts in other Australian States, and on

receipt of this draft had submitted it to the Premier. Some of the clauses had been altered in its passage through Parliament, a few had been omitted and a few added, but in its substance the *Act* was identical with the Bill which had been drawn up.

Dr. Arthur expressed the hope that the regulations would contain more drastic provisions in connexion with the certificates of cure than did the regulations under the Victorian *Act*. He pointed out that many patients in the past had never been cured of their disease and, even at present, he was bold enough to assert, a considerable number of practitioners were not in a position to carry out the treatment effectively. In regard to the question of tests, he expressed the hope that they would be carried out exclusively by competent persons. He ventured to suggest to some of the younger members of the profession who had had experience of this kind while on active service, that they would find this specialty a lucrative one to practise. It had been stated that herbalists and other unqualified practitioners handle over 50% of persons suffering from gonorrhœa. He would not be surprised if the percentage were as high as 75. The *Act* would drive the patients from the unqualified practitioners, if it were administered drastically. Dr. Arthur laid great stress on the extreme desirability of the provision of adequate accommodation in hospitals and elsewhere for the treatment of persons suffering from these diseases before the *Act* was put into operation. It was necessary to have ample buildings and a sufficient staff of competent practitioners and assistants. The problem in the country was no doubt still more difficult, but it was not insoluble. Dr. Arthur referred to an investigation which he had made into the available accommodation. He had submitted the result of this investigation in the form of a report. There was no doubt whatsoever that provision would have to be made for a very large number of patients. The outlook was, very grave indeed, owing to the prevalence of venereal disease among the men returning from the front. Before concluding, Dr. Arthur again expressed the hope that the Government would not precipitate the application of the *Act*, but would make full provision for the patients to be treated and would exercise extreme caution in the drafting of the regulations.

Dr. J. Bean agreed with Dr. Arthur that in a large number of cases the diseases in returned men was still uncured. He had had experience while on active service and recognized that it was necessary to cut short the active treatment, in order to return the men to the lines in the quickest time possible. In consequence of this, the men frequently got relapses. In the early period there was no uniformity of treatment. This also had a bad effect. He held that sympathy rather than compulsion would make for success of the *Act*. Colonel Harrison had gained the attention and intelligent co-operation of the patients and his medical officers and this contributed very largely towards the excellent results obtained. On the other hand, the *Act* contained a provision that the patients would be compelled to accept the advice of their doctor. He wondered whether this would be enforced. Some men were very drastic in their treatment and the patients would certainly refuse to submit to it. He held the opinion that much special knowledge and experience was necessary in the carrying out of tests for cure. He suggested that the work should be conducted by Government officials. It was in his opinion impossible to form an opinion concerning the cure of a gonorrhœa without an anterior and a posterior urethroscopic examination.

In referring to Dr. Ellis's paper, he differed from him in regard to the advisability of introducing the registration of prostitutes. He claimed that it had proved a failure wherever it had been introduced. It was, moreover, inadmissible on moral grounds. Dr. Bean was met with expression of dissent when he questioned the justifiability of the introduction of prophylactic or curative measures if such measures could be proved to be efficacious, on the ground that this would tend to increase the amount of vice among the community. He pleaded for an attack of the problem on an educational basis.

Dr. Mary Booth referred to the practice of the military authorities in refusing to divulge any information concerning patients in venereal camps. She referred to an instance of a soldier who had been sent to Milson Island. His wife was naturally anxious to know if the man were infected, but the

military authorities were persistent in withholding all information. She held that this was particularly unfair, more especially because the same authorities had not hesitated in informing men, even in the trenches, of infidelity on the part of their wives, when this information was brought to the notice of the authorities. Dr. Mary Booth was much concerned at the prospect of a large number of infected men returning to the Commonwealth. She hoped that the *Act* would be instrumental in protecting thousands of girls from infection from this source. She thought that the military authorities should disclose the information to those administering the *Act*, in order to prevent a further spread of the disease.

Dr. A. J. Gibson said that it appeared to him that the general practitioner would have nothing to do but to sign certificates and to have worry, when the *Act* came into force. He did not think it would be worth while for them to treat venereal diseases. He was convinced that when the patients were influential persons, the cases would not be notified.

Dr. F. P. Sandes called Dr. Mary Booth's attention to Section 21 of the *Act*, which provided a heavy penalty in the case of a person knowingly infecting another. He thought that this provision would be regarded as a sufficient protection for the wife in the case instanced of the soldier at Milson Island. He was very grateful to Dr. Todd for the clear exposition of the legal aspect of the *Act*, as it affected the medical practitioner. He agreed with other speakers that many patients would be anxious to evade the provisions of the *Act*. He anticipated difficulty in regard to diagnosis. He would be pleased to learn whether the diagnosis of gonorrhœa was to be strictly limited to those infections caused by the gonococcus or whether the allied infections caused by other organisms were to be included. He hoped that the New South Wales Branch of the British Medical Association would be consulted before the regulations were drafted and he further suggested that an advisory body should be appointed to assist the Commissioner in dealing with various matters of administration. He was convinced that the success or otherwise of the *Act* would depend on whether the Commissioner carried out his administrative duties in a sympathetic but firm manner or not. He was sure that the public would recognize the advantage of the *Act* and he hoped that the profession would learn that the formalities would be less onerous than they anticipated.

In his reply, Dr. Todd reminded Dr. Nash that his use of the word "compulsion" was justified, inasmuch as it occurred in the *Act* and actually represented the whole purport of the *Act*. In view of the very onerous duties which the Commissioner would have to carry out, he advocated that this officer should devote his whole time to these duties. In conclusion, he referred in appreciative terms to the valuable report drawn up by Dr. Arthur.

Owing to the prevalence of influenza in Brisbane, the Queensland Branch Council has determined that no general meetings of the Branch will be held until further notice.

The clinical meeting of the New South Wales Branch, which was to have been held at the Royal Alexandra Hospital for Children on June 13, was cancelled at the last moment, on account of the recrudescence of the epidemic.

Austin Cahill, Esq., M.B. et Ch.B. (1918, Univ. Melb.), of St. Vincent's Hospital, Melbourne, has been elected a member of the Victorian Branch.

F. W. Carter, Esq., M.B., Ch.B. (1917, Univ. Aberdeen), of 935 Hay Street, Perth, has been elected a member of the Western Australian Branch.

THE TREATMENT OF PERSONS SUFFERING FROM VENEREAL DISEASE IN NEW SOUTH WALES.

Dr. Richard Arthur, M.L.A., issued early in the present year a report on the "Existing Facilities for the Treatment of Venereal Diseases in New South Wales with Recommendations for their Extension and Improvement." This report was drawn up by Dr. Arthur in his capacity of Commissioner to enquire into certain aspects of the venereal disease question and is of considerable importance, in view of the pending application of the provisions of the *Venereal Diseases Act, 1918*. Dr. Arthur bases his narrative and recommendations on experience obtained during visits

to the Sydney, the Royal Prince Alfred, St. Vincent's, the Royal North Shore, the Royal South Sydney, the Women's and the South Sydney Women's Hospitals, the Royal Hospital for Women, the Coast, the Liverpool State and the Newington State Hospitals, the Hospitals for the Insane at Gladesville and Parramatta, the Deaf, Dumb and Blind Institution, Industrial Schools for Girls, Parramatta, the Penitentiary at Long Bay, the Parramatta Gaol and the hospitals at Newcastle, Maitland, Armidale, Bathurst, Orange, Wagga and Albury. He also visited Melbourne and Brisbane, where he obtained information and assistance from Dr. Cumpston, the Director of Federal Quarantine, from Dr. Robertson, Chief Health Officer of Victoria, Dr. Moore, the Commissioner of Health of Queensland, Professor Sir Harry Allen, Dr. Ernest Jones, Dr. C. H. Johnson and Dr. R. J. Bull.

Existing Facilities for Treatment.

It is pointed out that persons suffering from syphilis receive treatment in the general hospitals in the dermatological out-patient departments, while those suffering from gonorrhœa are attended to in the surgical out-patient departments. Since the majority of the patients are unable to leave their work during the afternoon, a large proportion of them seek treatment from pharmaceutical chemists. In 1914 the Honourable Fred Flowers, then Minister of Health, endeavoured to introduce a system of evening clinics. One was opened at the Board of Health, but the attendance was small and it was closed after some months. An evening clinic was started early in 1915 at the Royal Prince Alfred Hospital. Within a short time the number of patients attending reached 1,300. The Board of Directors found that this large clinic interfered with the general work of the Hospital and were reluctantly compelled to limit the number of patients attending, at first to 700, later to 400 and still later to 200 patients. It is stated that from 30 to 70 persons are refused treatment at the clinics for venereal diseases at the Royal Prince Alfred Hospital each week. The Directors of the Sydney Hospital agreed to institute a similar clinic on the understanding that a special building would be erected by the Department of Public Health on a small strip of land in the Domain adjoining the Hospital. The land, however, has not yet been handed over. A clinic was established within the Hospital in 1917 and approximately 100 patients are treated in it each week. A small clinic is held at the Royal South Sydney Hospital on two evenings in the week. At the Royal Alexandra Children's Hospital there is an out-patient department for female children and at the Newcastle Hospital there is an evening clinic on one night a week.

Dr. Arthur points out that the existing facilities for indoor treatment of sufferers from venereal disease is quite inadequate. The only hospitals admitting male patients are two Government institutions, the Coast Hospital and the Liverpool State Hospital. At the former the accommodation is primitive and is limited to 35 patients, while 30 patients can be admitted to the latter. There is accommodation for 15 women and for 15 female children at the Royal Prince Alfred Hospital and there is a small ward for women at the Newington State Hospital.

Recommendations for Increased Facilities.

The Venereal Diseases Act, 1918, provides for the compulsory treatment of every case of venereal disease and prohibits treatment by unqualified persons. It will therefore be necessary to provide ample accommodation at the existing hospitals. Dr. Arthur maintains that these increased facilities must be provided before the legislation comes into force. He lays great emphasis on the urgency of this matter. The prevalence of these diseases is a serious menace to the well-being of Australia. At present they are more frequent in the metropolitan than in the country districts, but Dr. Arthur fears that with the return of a very large number of men who have been infected while on active service with the Australian Imperial Force, these diseases will be spread broadcast throughout the whole community.

A large sum of money is required for the erection of buildings in connexion with the metropolitan hospitals for the reception and treatment of persons suffering from venereal diseases. These departments should be used exclusively for this purpose. Adequate equipment is necessary and financial provision is required for a sufficiently large staff. The proposals Dr. Arthur makes are the following:—

At the Royal Prince Alfred Hospital the Directors should be asked to admit all applicants to the clinic and to open it on five evenings in the week and, if necessary, on Sunday mornings as well.

In the meantime a special building should be erected at the cost of £10,000 and a further £1,000 should be spent on equipment.

At the Sydney Hospital the strip of land promised by the Minister of Public Health should be handed over to the Hospital authorities and an up-to-date department for venereal diseases should be erected on this site. In addition, an adequate resident medical staff should be provided.

At the Royal North Shore Hospital and at the Royal South Sydney Hospital similar buildings should be erected. Dr. Arthur estimates the cost of these buildings at £6,000 apiece. Additional medical officers would also have to be appointed.

He recommends that clinics should be opened at Balmain and at Parramatta or Granville at some future date. He suggests that the buildings at the four metropolitan hospitals could be completed within six months and that this extension of out-door treatment would be sufficient for a time. In regard to indoor treatment, he holds the opinion that greatly increased accommodation for male patients should be provided either at the Coast Hospital or at Liverpool and that a special pavilion should be erected at Newington for women. He advocates that in these arrangements the prostitute class should be separated from married women and young girls. With a sufficient number of beds it would be possible to transfer some of the women who come under the provisions of the *Prisoners' Detention Act* from the prison hospital to the Newington Hospital. He holds the opinion that the chances of reclaiming some of these women would be greatly increased by this procedure.

Finally, he pleads for the setting aside of a special ward at one of the women's hospitals in Sydney for pregnant women who are suffering from syphilis or gonorrhœa.

After much consideration and enquiries in many institutions, he has arrived at the opinion that the proposal to compel those responsible for the management of country hospitals to make provision for the treatment of persons suffering from venereal disease, is impracticable. He advocates in the place of this proposal, the establishment of clinics in certain districts. The clinics should be attached to a hospital and be placed under the direction of a medical practitioner specially trained in laboratory methods and in the treatment of venereal diseases. He holds that a salary of from £500 to £800 with board and residence, would be required to secure the services of a competent man. Arrangements should be made with the hospital to set aside a ward for males and another for females. The money required for the maintenance of these patients and for the equipment of the laboratory would have to be supplied by the Department. The medical practitioner in charge of the clinic should be required to pay periodical visits to other towns in his area, to assist local medical practitioners in the diagnosis and treatment of venereal diseases. Dr. Arthur allows his enthusiasm to run away with him, to some extent, in a further suggestion. He proposes that a railway car might be fitted up as an examination room and laboratory, "so that the diagnosis of cases that offered some difficulty might be arrived at on the spot." The diagnosis of syphilis, including both the search for spirochaetes and the performance of the Wassermann test, occupies too much time to be feasible under these conditions, while the diagnosis of gonorrhœa not infrequently necessitates many days' study.

Dr. Arthur makes a more practical suggestion, in requiring Mahomet to go to the mountain. He proposes that the patient should travel by train to the town in which the clinic is situated and should receive from the responsible medical officer at the clinic a refund of the money paid as his railway fare. If necessary, the patient could be admitted to the hospital for a night or even longer.

He suggests that a clinic should be established at Newcastle, to serve the Newcastle district, the mining centre of Maitland, the Northern Railway Line as far as Singleton and the North Coast Line as far as Gloucester. Other clinics could be established at Tamworth for the north, at Lismore for the northern rivers, at Orange for the west and at Coonamble for the south. He makes various other proposals, having for their object the inducement of persons to avail themselves for these facilities.

The Administration of the Prisoners' Detention Act.
In addition to the recommendation referred to above concerning the reception of women affected by the provisions of the *Prisoners' Detention Act*, Dr. Arthur advocates that all prisoners coming under this *Act* should be concentrated in one prison for medical treatment. He suggests that the Long Bay Penitentiary should be reserved as a receiving hospital for all prisoners with venereal disease. Those with short sentences could be kept there until they were discharged. Those with long sentences could be detained there until they were found to be no longer dangerous to others.

Laboratory Work.

Dr. Arthur refers to the fact that the *Venereal Diseases Act* will result in a great increase of work at the Micro-Biological Laboratory of the Public Health Department. He states that the staff of these laboratories is inadequate and the accommodation insufficient. These defects will be accentuated when the *Act* is in force. He points out that the Wassermann test is a delicate and complicated one "and the supervision, if not all the carrying out of it, should be in the hands of a qualified expert." He considers that no one save a trained bacteriologist can carry out the microscopical diagnosis of gonorrhœa. Laboratories and pathological department exist at the Sydney University and at the Sydney Hospital and Royal Prince Alfred Hospital. In addition, there are a certain number of medical men who specialize in bacteriology and who make examinations for private patients. He assumes that the additional bacteriological and other laboratory work rendered necessary by the enforcement of the provisions of the *Act*, will have to be undertaken at the Micro-Biological Laboratory. He suggests that this building should be extended for this purpose.

Medical Education.

Dr. Arthur wishes to include in the medical curriculum instruction in the diagnosis and treatment of venereal disease. He suggests a short course of lectures and attendance of the student for at least three months at a recognized venereal clinic. He also advocates the establishment of a post-graduate course of venereal disease.

The Commissioner.

Dr. Arthur urges the appointment of a Commissioner to administer the *Act* without delay. It will be remembered that this report is dated January, 1919, and that Dr. R. T. Paton was not appointed permanent Commissioner until the end of May. In Dr. Arthur's opinion, the Commissioner should be a young, active man with an intimate knowledge of the latest developments in the treatment of venereal diseases. "It should be his duty to make an immediate start in the carrying out of the recommendations contained in this report and, in order to do this satisfactorily, he should be untrammelled as much as possible by Departmental control and ample funds should be placed at his disposal." He suggests that the salary of the Commissioner should commence at £800 a year and travelling expenses and should rise by annual increments of £50 to £1,000. He is convinced that the success of the measure will depend largely on the choice of the Commissioner. He advocates the appointment of an advisory committee to confer with the Commissioner and suggests that representatives should be nominated by the University of Sydney and by the New South Wales Branch of the British Medical Association.

Financial Provision.

In an appendix Dr. Arthur gives an estimate of expenditure on buildings and of annual expenditure in the administration of the *Act*. The first sum aggregates £73,000, while he estimates that £25,380 will be required each year.

Correspondence.

DAILY HOT BATHS IN PNEUMONIC INFLUENZA.

Sir.—During this epidemic I have treated (a) many cases without discoverable lung signs and (b) 70 cases with signs indicating pneumonia with daily baths at about 43.5° C. for usually fifteen minutes. The series is small; but the results have been so eminently satisfactory that, although I hope to publish matured conclusions later, I consider it my duty in the present emergency to outline the treatment forthwith.

When trained attendants are unobtainable, the patient lies immersed to his neck in a bath "as hot as he can comfortably bear." Someone stays with him, as he may become faint after eight or ten minutes. In this event he, of course, gets out then; otherwise he stays fifteen or, if quite comfortable, twenty minutes. On his emerging (without drying) a blanket or thick garment is quickly donned, and he makes straight for bed, where several blankets are placed over him. After four to eight hours the inside blanket is removed and pyjamas are resumed. If he must walk upstairs or downstairs to the bath—well, he must; but if he can be carried, so much the better.

When a trained nurse attends she places the patient in a bath at 42° to 43.5° C. and presently increases the temperature to 44.5° C.. The bath is repeated every 24 hours (no objection to 12 hours if specially indicated) until the disease is under control. Repetitions are not contraindicated by faintness in the bath. Between baths the patient is encouraged to drink water freely.

Calomel, 0.18 to 0.86 grm., *pulv. doveri*, 0.6 grm., are given after the first bath. Other drug treatment is symptomatic. If the pulse appears too soft, I raise the blood pressure with caffeine or pituitrin before a bath.

Results.—Cases not recognizably pneumonic were all aborted after first or second bath. In the 70 pneumonic cases the death-rate was nil. By the second, third or fourth day of treatment all cases except three were either convalescent or terminating by lysis. Only these three required four baths, while none required more. (Yet quite fifteen cases had been such as to give promise, assuming merely expectant treatment, of quickly becoming critically ill.)

Each bath was followed by either temporary or permanent relief of symptoms; also, with rare exceptions, by free sweating and refreshing sleep.

After a fifteen-minute bath (see also Breinl and Young, *The Medical Journal of Australia*, May 10, 1919, page 376) the patient's temperature was raised by 1° or 2° (usually about 1.5°) centigrade; but a few hours later it was generally at or below its pre-bath level.

Rationale.—I have used this treatment in the pneumonias of children for ten or twelve years without a single death. The original therapeutic objectives were (a) elimination of toxins, (b) diminution of pulmonary and cerebral congestion, (c) diminution of bronchial spasm. Recently, however, a suggestion by a colleague set me speculating further and consulting the literature; and I now suspect that while all the above factors operate more or less, the essential effect of the bath is the establishment of an approximation to the body state which immediately precedes a termination by crisis.

Yours, etc.,

REES F. LLEWELLYN.

7 Havelock Street, Drummoyne,
Sydney, June 14, 1919.

Proceedings of the Australian Medical Boards.

NEW SOUTH WALES.

The undermentioned has been registered, under the provisions of the *Medical Act, 1912* and *1915*, as a duly qualified medical practitioner:

Byrne, Ethel, M.B., Mast. Surg., 1918, Univ. Sydney.

Additional Registrations:

Ferguson, William John, Mast. Surg., 1919, Univ. Sydney.

Graham, Roy Vesey, Mast. Surg., 1919, Univ. Sydney.

Hair, Gordon Hastings, Mast. Surg., 1919, Univ. Sydney.

May, Leonard, Mast. Surg., 1919, Univ. Sydney.

Pilfer, Roland Jordan Gore Armstrong, Mast. Surg., 1919, Univ. Sydney.

Kesteven, Hereward Leighton, M.D., 1919, Univ. Sydney.

VICTORIA.

The undermentioned has been registered, under the provisions of the *Medical Act, 1915*, as a duly qualified medical practitioner:

Le Souef, Ronald Farquharson, M.B. et Ch.B., Melb., 1917, c/o A. M. Le Souef, Esq., The Mint, Melbourne.

The following names of deceased practitioners have been removed from the Register:—

Heinrich Rabl.

William Daniel Campbell Williams.

Births, Marriages and Deaths.

The charge for inserting advertisements of Births, Marriages and Deaths is 5s., which sum should be forwarded in money orders or stamps with the notice, not later than the first post on Tuesday morning, in order to ensure insertion in the current issue.

DEATH.

WASSALL.—On June 16, 1919, at Hunter's Hill, Sydney, of influenza, Dorothy Frances, the beloved wife of Charles E. Wassall, M.B., Ch.M., Sydney.

Medical Appointments.

During the absence of Dr. G. H. S. Blackburne (B.M.A.) on one month's leave, to date from June 2, Dr. A. S. Johnson (B.M.A.) has been appointed Acting District Medical Officer and Public Vaccinator at Albany, Western Australia.

The appointment of Dr. Adrian W. Farmer (B.M.A.) and Dr. Reginald H. Morgan as Junior Resident Medical Officers at the Perth Public Hospital has been approved.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xv.

Children's Hospital (Inc.), Perth: Chief Resident Medical Officer.

Hospital for Sick Children, Brisbane: Resident Medical Officer.

Australasian Massage Association, Sydney: Six Lecturers.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other Contract Practice. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Cloncurry Hospital.
TASMANIA. (Hon. Sec., Macquarie Street, Hobart.)	Medical Officers in all State-aided Hospitals in Tasmania.

Branch.	APPOINTMENTS.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	Contract Practice Appointments at Remark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA. (Hon. Sec., 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.)	All Contract Practice Appointments in Western Australia.
	Australian Natives' Association. Balmain United Friendly Societies' Dispensary. Canterbury United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Friendly Society Lodges at Lithgow. Friendly Society Lodges at Parramatta, Auburn and Lidcombe. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Newcastle Collieries—Killingworth, Seasham Nos. 1 and 2, West Wallsend. North Sydney United Friendly Societies People's Prudential Benefit Society. Phoenix Mutual Provident Society.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

June 24.—N.S.W. Branch, B.H.A., Medical Politics Committee; Organization and Science Committee.
 June 25.—Vic. Branch, B.M.A., Council.
 June 26.—S. Aust. Branch, B.M.A., Annual Meeting.
 June 27.—N.S.W. Branch, B.M.A.
 June 27.—Q. Branch, B.M.A., Council.
 July 1.—Tas. Branch, B.M.A., Branch and Council.
 July 1.—N.S.W. Branch, B.M.A., Council.
 July 2.—Vic. Branch, B.M.A.
 July 8.—N.S.W. Branch, B.M.A., Ethics Committee.
 July 11.—N.S.W. Branch, B.M.A., Clinical.
 July 11.—Q. Branch, B.M.A., Council.
 July 11.—S. Aust. Branch, B.M.A., Council.
 July 15.—Tas. Branch, B.M.A., Branch and Council.
 July 15.—N.S.W. Branch, B.M.A., Executive and Finance Committee.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated. All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney.

The Secretary of the Victorian Branch is endeavouring to secure copies of the issues of the *British Medical Journal* of the following dates, to complete a file for one of the members. We shall be grateful to any of our readers who has a spare copy of any of the numbers sought, if he will offer them to the Secretary of the Branch:—
 1915: April 3 and 10; July 10, 17, 24, 31; August 7 and 21.
 1916: July 8, August 5 and 12, November 18.